

CURRICULUM VITAE

Lynda F. Bonewald, Ph.D.

Update: July 19, 2025

I. GENERAL INFORMATION

A. Personal Data:

Citizenship Status U.S.

B. Education:

1973 B.A. (Biology) University of Texas, Austin, TX,

1984 Ph.D. (Immunology/Microbiology) Medical University of South Carolina,
Charleston, SC.

C. Postgraduate Training:

1984-1986 Postdoctoral Fellow in the laboratory of Dr. Makio Ogawa, VAMC, Charleston,
South Carolina

D. Academic Appointments:

2016-pres. Professor, Anatomy, Cell Biology and Physiology and Orthopaedic Surgery.

2016-2024 Founding Director, Indiana Center for Musculoskeletal Health

2015-2016 Director, Kansas City Consortium for Musculoskeletal Diseases and Disorders

2015-2016 Endowed Professorship in Dental and Mineralized Tissue Research

2012-2015 UMKC Vice Chancellor for Translational and Clinical Research

2009-2012 UMKC Vice Chancellor for Research and Economic Development *Interim*

2009-2016 Director, UMKC Center of Excellence in the Study of Dental and
Musculoskeletal Tissues

2001-2015 Lefkowitz Professor of Oral Biology and Director of the Bone Biology Research
Program, School of Dentistry, University of Missouri at Kansas City, Kansas
City, MO.

1998-2001 Professor of Medicine, Departments of Medicine, Biochemistry, and Cellular
and Structural Biology, University of Texas Health Science Center, San
Antonio, TX

- 1992-1998 Associate Professor of Medicine, Department of Medicine; University of Texas Health Science Center, San Antonio, TX
- 1992-1998 Associate Professor, Department of Cellular and Structural Biology, University of Texas Health Science Center, San Antonio, TX
- 1992-1998 VA Research Investigator, Audie Murphy Veterans Administration, Medical Center Hospital, San Antonio, TX
- 1993-1998 Associate Professor, Department of Biochemistry; University of Texas Health Science Center, San Antonio, Texas
- 1986-1992 Assistant Professor of Medicine, Department of Medicine; University of Texas Health Science Center, San Antonio, Texas
- 1990-1992 Assistant Professor of Medicine, Department of Cellular and Structural Biology; University of Texas Health Science Center, San Antonio, Texas

E. Other Employment:

- 1976-1979 Research Assistant in the laboratory of Dr. Urban J. Lewis, Scripps Clinic and Research Foundation, La Jolla, California

F. Certification and Licensure: Not applicable

G. Honors and Awards:

- 1982 Outstanding Student Award, Department of Basic and Clinical Immunology and Microbiology, Medical University of South Carolina.
- 1985 Scholar, Damon Runyon-Walter Winchell Cancer Fund.
- 1994 Visiting Professor, Meikei University, Sakado, Japan, November, 1994.
- 1996-1999 Council Member, American Society for Bone and Mineral Research
- 1997-2001 Executive Board, Association of Biomolecular Resource Facilities
- 1998-2000 President, Association of Biomolecular Resource Facilities
- 1999-2004 NIH NIDCR Board of Scientific Counselors
- 2001-2004 Chair, NIDCR Board of Scientific Counselors
- 2001-2004 FASEB Board of Directors, non-voting
- 2001-2004 Vice-Chair, National Osteoporosis Foundation, Scientific Advisory Board

2004-2005	International Osteoporosis Foundation
2005	University of Missouri Curator's Professor
2006	Distinguished Scientist Award in Mineralized Tissue IADR/AADR
2006	"RIB" Award, Sun Valley Workshop
2009	Elected Secretary/Treasurer, ASBMR
2011-2014	NIH NIAMS Council
2011	Elected President, American Society for Bone and Mineral Research, ASBMR
2015	ASBMR William Neuman Award
2018	The 15 th Richard L. Cruess Lecture on Bone Structure and Metabolism, Montreal, Canada
2019	Fellow, American Association for the Advancement of Science
2020	Indiana University Distinguished Professor
2024	ASBMR Louis V Avioli Founders Award

II. TEACHING

A. Classroom/Laboratory:

Course Directorships

UTHSCSA Biochemistry Department - Co-director Biochemistry Core Course - "The Extracellular Matrix", 1hr credit, Fall 1993

UMKC Oral Biology Department-Co-Director Physiology of Hard Tissues BISC 5670- Fall 2008.

Lectures for courses

UTHSC, University of Texas Health Science Center

Biochemistry Department

"Cytokines and their receptors" for course "Cell Signaling Mechanisms", Spring 1994, Fall 1995; Spring, 1997; Spring 1999, Spring 2001.

"Eicosanoids" for course "Lipid Mediators", Fall 1994, Spring 1996

Oncology Core Course

"Protein Structure/Function" for course "Introduction to Cancer Research", July 1994, July 1995, July 1996, July 1997, July 1998

Cellular and Structural Biology Department

"Regulation of Transforming Growth Factor:" for course "Tumors and their Suppression" June 1997

UMKC, University of Missouri Kansas City

Oral Biology

"Proteins and their functions" for course "Oral Biochemistry and Molecular Genetics" Spring, 2002.

"Microbial Proteomics" for course "Oral Microbiology" Fall, 2002, 2004, 2006, 2008

"The Role of the Osteocyte in Bone" for course "Oral Pathology", Fall 2002, 2004, 2006

"Basics of Bone", "Bone Extracellular Matrix", "Mechanisms of Mineralization in Bone", for course "Structural Properties of Calcified Tissues", Winter 2004.

"The Salivary Proteome" for course "Oral Biochemistry and Molecular Genetics" Spring 2004

"Bone Development", "Bone Extracellular Matrix", "Mineralization" for "Short-term Training in Dental and Craniofacial Bioengineering", June 13, 2005.

"Genomics to Proteomics" for course "Oral Biochemistry and Molecular Genetics" January 27, 2006.

"New Challenges for New Investigators", Professional Development, Feb. 28, 2013.

"An Introduction to the Immune System", Immunopathology, January 21, 2015

Orthodontics

"Bone Growth and Development" and "Bone Disease" for course "Growth and Development I (BISC 706)" Winter 2003, Winter 2006

D.D.S. Class

"Osseointegration" for course "Introduction to Implant Dentistry", D6595, Feb. 23, 2009; Feb. 16, 2010, Mar. 1, 2011, Feb. 28, 2012, Mar. 5, 2013, Mar. 6, 2014, Mar. 5, 2015, Feb. 3, 2016

Pharmacology

"Proteomics" for course "Analytical Methods", Pharm 527, Nov. 2003

School of Engineering and Computing

“Osteocytes-Master Mechanoresponders” for course “Metamodels in Biology”, Nov. 15, 2004

School of Medicine

“Bone Development, Growth, Function, and Disease” for First Year Medical Students, Nov. 3, 2006, Oct. 9, 2007, Sept, 2010, Oct, 2011.

“Bone and Bone Formation: from Research to Treatment” MED 9119 Learning Basic Medical Sciences: Connecting Science and Clinical Practice for Your Professional Life Oct 2007, Sept 23, 2008, Sept 28, 2009, Sept. 28, 2010, Sept, 2011, Oct 2, 2012, Sept. 17, 2013, Sept. 30, 2014, Sept. 28, 2015.

United States Bone and Joint Decade Young Investigators Initiative Workshop, Chicago, Ill.

Round Table Chair and Participant

Guest Lecture: “*Motivation for a Career in Science*” May 3, 2008

IU, Indiana University

“Osteocytes” Basic Bone Biology Course, G819, January 16, 2018

“Aging Bone” Basic Bone Biology Course, G819, April 23, 2024.

B. Clinical Teaching: not applicable

C. Instructional Development: none

D. Master’s Theses and Ph.D. Dissertations directed, Membership on Supervising Committees, and Postdoctoral Fellows Supervised:

Graduate Students:

UTHSC

Membership on Thesis Committees:

Cellular and Structural Biology

Theresa Johnson	1990-1994
Anne Smith	1991-1994
Anne Dodd	1997-2001
Aaron Unterbrink	1998-1999
Janaki Veeraraghavan	1998-2001

Biochemistry

John Schmidt	1993-1995
Tom Hummert	1993-2001
Ann Eakes	1993-1997
Natalie Gibson	1996-2003
Pete Walker	1999-2000

Molecular Medicine

Wayne Hao	1998-1999
-----------	-----------

KUMC

Rama Dhanyamraju	2002-2003
Sushma Jadalannagari	2014-2016

UMKC

Wu-Chen Yang	2001-2003
Arvind Krlshnaswamy	2002-2004
Qian Chen	2001-2006
Yan Wang	2003-2007 Chair
Yongbo (Bob) Lu	2003-2007 Chair
Hector Rios	2004-2006
Vania Castro	2005-2011
Arindam Ganguly	2006-2007
Yi Liu	2006-2010

Georgia Institute of Technology

Tracy Denison	2007-2009
---------------	-----------

Wake Forest University School of Biomedical Engineering

Amber Bonivtch	2008-2009
----------------	-----------

Missouri S&T

Hailuo Lu	2011-2012
-----------	-----------

Univ of Texas Health Science Center

Nidya Batra	2011-2012
-------------	-----------

Indiana University

Sephora Jean	2024-present
Andrew Law	2020-2024
Hannah Wilson	2024-present

Qualifying Exam Committees:

Dan Riley	1990
Charles Sewell	1995
Greg Maresh	1996
Natalie Gibson	1997 Chair
Qian Chen	2004
Hector Rios	2005 Chair
Yan Wang	2006 Chair
Yongbo (Bob) Lu	2006 Chair
Vania Castro	2006

Summer Research Project

Mary Beth Kenedy	1993
------------------	------

Laboratory Rotations

Monica Flynn	1993
Charles Sewell	1994
Dana Fathy	1995
Natalie Gibson	1995
Shilpa Kelkar	2006
Anika Shimonty	2019

Mentor

Monica Flynn	Dental Scientist Program	1994-2000
Cielo Barragan	Graduate Student	2001-2006
Dayong Guo	Graduate Student	2005-2009
Shilpa Kelkar	Graduate Student	2006-2009
Laura de Ugarte Corbalan	Graduate Student	2013-2014
Peipei Duan	Graduate Student	2013-2015
Julian Vallejo	Master's Graduate Student	2015-2016
Elliott Geoff	Master's Graduate Student	2015-2016
Anika Shimonty	Graduate Student	2019-2023

Whitaker Fellow:

Elliott Geoff 2014-2015 Ralph Mueller Laboratory

International Graduate Students

Hai Qing	2007-2010
Laura de Ugarte Corbalan	2013-2014
Duan Peipei	2013-2015
Alberto Smargiassi	2013-2014

Minority High School Student Program:

Summer Project	Andy Baltimore	1994
Science Project	Cesar Garcia	1994-1995
		1995-1996

Science Project	Omar Magallenas	1997-1998
-----------------	-----------------	-----------

Summer Research Program	Veronica Granger	1998
-------------------------	------------------	------

Science Project	Jeff Martinez	2001
-----------------	---------------	------

College Student

Summer Research	Gregory Tasian	1999
-----------------	----------------	------

High School Teacher:

Richard Carruba, Chemistry High School teacher at Jefferson High School, Summer Laboratory Rotation, 1992, 1993

Visiting Scholar:

Jen Hao Chen, D.D.S., Kaohsiung Medical University, Taiwan, Summer Laboratory Rotation, 2005.

Hisataka Kondo, D.D.S., Ph.D., Department of Pharmacology, School of Dentistry, Aichi-Gakuin University, Japan 2014, 2015

Elena Tsoudi, Ph.D., Germany, 2015

Ziyi Wang, D.D.S., Okayama Univ, Japan, 2019

Eijiro Sakamoto, D.D.S. 2020

Dental Summer Scholars:

Ted Beacuchamp	UMKC	2006
Josh Stone	UMKC	2006
Katy Niedig	UMKC	2010
Zachary Brown	UMKC	2011
Myles Davidson	UMKC	2012
Timothy Bunnell	UMKC	2012
Brett Zobel	UMKC	2013
Audrey Sill	UMKC	2013
Joshua Farr	UMKC	2014
Dan Kirkpatrick	UMKC	2014

UMKC Orthopaedic Residents

Ajay Patel	UMKC	2015
------------	------	------

IU LHSI

Colton Pratt	IU	2017
Kendra Holliger	IU	2018
Abigail McMillen	IU	2019

IU High School Students

Morris Gimble	IU	2018
Senait Nega	IU	2019

IU Medical Student

Corrine Kumar	IU	2019
---------------	----	------

IU IMPRS Student

Roarke Tollar	IU	2021
---------------	----	------

Postdoctoral Fellows and Clinical Fellows:

Johannes Pfeilschifter, Ph.D.	1986-1988	Professor	Berufsgenossenschaftliche Kliniken Bergmannsheil, Bochum, Germany, D- 44789
Masato Funesaka, M.D.	1987-1988	Japan	
Massimo Sabatini, Ph.D.	1986-1989	Research Scientist	Servier, France
Akiko Kukita, Ph.D.	1987-1989	Research Scientist	Saga Medical School, Japan
Galen Wo, B.S.	1987-1990		Cornell University Ithaca, NY
Richard Oreffo, Ph.D.	1987-1990	Professor, Institute Director	Univ. of Southhampton, UK
Chang Ho Lee, Ph.D.	1989-1990	Associate Professor	Kangnung University Kangnung, Korea
Wolf Gallwitz, Ph.D.	1989-1991	Senior Scientific Manager	Aventis, US
Sarah Dallas, Ph.D.	1991-1995	Professor	Department of Oral Biology UMKC School of Dentistry Kansas City, MO.
Carlos Garcia, M.D.	1992-1994	Physician	Bogata, Columbia
Jim Gilles, D.D.S.	1992-1994	Professor	Department of Periodontics University TX Hlth. Sci. Ctr. San Antonio, TX
Yoichi Kato, B.S.	1994-1996	Research Scientist	Asahi Chemical Co., Ltd. Ohito, Japan
Shujie Zhao, M.D.	1996-1999	Scientist	Department of Surgery University TX Hlth. Sci. Ctr. San Antonio, TX

Kathy Trianedes, Ph.D.	1997-1999	Senior Scientist	National Stem Cell Ctr. Ground Floor 9 Business Park Dr. Notting Hill Vic 3168 Australia
Shigeru Amano, D.D.S., Ph.D.	1997-1998	Professor	Meikei University Sakado, Japan
Atushi Watanabe, D.D.S.	1998-1999		Japan
Seong-Kyu Li, M.D.	1999-2000	Physician	Korea
Nobuyaki Takeshita, Ph.D.	1999-2000	Research Scientist	Fujisawa Phar. Cor. Tsukuba Res. Labs. 2-3, 5-chome, Tokodai, Tsuba, Ibaraki 300-2698 Japan
Seong-He Ko, D.D.S., Ph.D.	2001-2003	Dean	Dean, Dental School, South Korea
Keqin Zhang, M.D., Ph.D.	2002-2004	Clinical Professor	Physician Shanghai, China
Yukiko Kitase, D.D.S., Ph.D.	2004-2007	Res Asst Prof	Anatomy Cell Biology IU
Hai Qing, D.D.S., Ph.D.	2007-2010	Assistant Professor	Temple Univ. Maurice H. Kornberg School of Dentistry Restorative Dentistry 3223 North Broad Street Philadelphia, PA 19140
Yan Wang, Ph.D.	2008-2009		
Stacey Woo, D.D.S., Ph.D.	2008 -2010	Post-doctoral Fellow	Endodontist Anaheim, CA 92808
Katharina Jaehn, Ph.D.	2010-2012	Research Fellow	Hamburg, Germany

Matthew Prideaux, Ph.D.	2011-2013	Research Assistant Professor	Augusta Univ.
Ning Zhao D.D.S.,MSD,Ph.D.,	2013-2014	Dept of Orthodontics School of Stomatology, 9th People's Hospital Shanghai Jian Tong Univ China	Shanghai, China
Delphine Maurel, Ph.D.	2013-2014	Research Scientist	Inserm, France
Tsutomo Matsumoto, D.D.S.	2015-2017	Dentist	Tokyo Medical and Dental University
Eijiro Sakamoto Fabrizio Pin, PhD	2020-2023 2017-2021	Dentist Assistant Professor	Nagasaki Institute Indiana University
Alberto Smargassi, PhD	2017-2019	BioProcess Scientist	Eli Lilly, Ireland

III. RESEARCH

A. Bibliography:

1. Books and chapters

1. Lewis UJ, Singh RNP, **Bonewald LF**, Tutwiler F: Structure-function relationships for human growth hormone. In: Abraham GE (ed), Radioassay Systems in Clinical Endocrinology, Marcel Dekker, Inc., New York, pp. 3-19, 1981.
2. Wang AC, Zhang HS, **Bonewald L**, Tung E, Bouvet JP, Liacoupoulus P: Structural analysis of a monotypic kappa chain with increased molecular weight. In: Streilein JW, Ahmad F, Black S, Blomberg B, Voellmy RW (eds). Cambridge University Press, New York, pp. 335-336, 1988.
3. Mundy GR, **Bonewald LF**, Roodman GD, Chenu C, Oreffo ROC, Pfeilschifter J, TGF beta and Bone Remodeling. In: H Imura K. Shizume, S. Yoshida (eds). Progress in Endocrinology 1988. Vol 2. Excerpt Media, New York, 927-931, 1988.
4. Mundy GR, **Bonewald LF**, Effects of immune cell products on bone. Sorg C (ed) Macrophage - derived cell regulatory factors. Cytokines. Basal, Karger, 1989. 1:38-53.

5. Pfeilschifter J, **Bonewald L**, Mundy G: The role of growth factors in cartilage and bone metabolism. In: M Sporn and AB Roberts (eds): Handbook of Experimental Pharmacology: Peptide growth factors and their receptors, Vol. 95, Springer Verlag, Heidelberg, Chapt. 33, pp 371-400, 1990.
6. Wo Z, **Bonewald LF**, Oreffo ROC, Chirgwin J, Capony F, Rochefort H, Mundy G. The potential role of procathepsin D secreted by breast cancer cells in bone resorption. In: Cohn DV, Glorieux FH, Martin TJ (eds), Calcium Regulation and Bone Metabolism. Basic and clinical aspects. Volume 10, Excerpta Medica, Amsterdam, pp. 304-310, 1990.
7. Mundy GR, Roodman GD, Yoneda T, **Bonewald L**, Oreffo R: Growth regulatory factors in bone cell function. In: Calcium Regulation and Bone Metabolism. Basic and clinical aspects. Cohn DV, Glorieux FH, Martin TJ (eds), Volume 10, Excerpta Medica, Amsterdam, pp. 257-269, 1990.
8. Mundy GR, Roodman GD, **Bonewald LF**, Yoneda T, Sabatini M. Effects of TNF α and lymphotoxin on bone cells. In: Aggarwal BB and Villick J (eds), Tumor Necrosis Factors alpha: Structure, Function and mechanisms of Action. Marcel Dekker, Inc., New York, Chapt. 21, pp 483-498, 1991.
9. Mundy GR, Roodman GD, **Bonewald LF**, Oreffo ROC, Boyce BF. Assays for bone resorption and bone formation. In: Barnes D, Mather JP, Sato GH (eds), Methods in Enzymology: Peptide Growth Factors, Part C, Section VIII: Techniques for Study of Growth Factor Activity. Academic Press, Inc., New York, Vol. 198, Chapt. 47, pp 502-510, 1991.
10. Mundy GR, **Bonewald LF**. Transforming Growth Factor beta. In: Cytokines and Bone Metabolism. Russell RG and Gowen M (eds). CRC Press, Inc., Chapt. 3, pp 93-107, 1992.
11. **Bonewald LF**. Effects of Estrogen on Growth Factors in Bone. In: Ernst Schering Research Foundation Workshop 9 Sex Steroids and Bone. Ziegler R, Pfeilschifter J, Brautegram M (eds). Springer-Verlag, Chapt. 5, pp 71-94, 1994.
12. Fields GB, Angeletti RH, **Bonewald LF**, Moore WT, Smith AJ, Stults JT, Williams LC. Correlation of cleavage techniques with side-reactions following solid-phase peptide synthesis. In: Techniques in Protein Chemistry IV. Crabb, JW (ed), Chapt. IX, pp 539-548, 1995.
13. Harris SE, Harris MA, Feng J, Ghosh-Choudhury N, Dallas S, LaPoint D, Wozney J, **Bonewald LF**, Mundy GR: Self-organizing bone cell differentiation in vitro: A system in search of the "edge of chaos". Vth Recontres de Blois "Chaos and Complexity", pp 239-245, 1995.
14. Mundy GR, Boyce BF, Yoneda T, **Bonewald LF**, Roodman GD: Cytokines and bone remodeling. Chapt. 11, In: Osteoporosis, Marcus B, Feldman D, Kelsey J (eds), Academic Press, New York, pp 301-313, 1996.
15. Angeletti RH, Bibbs L, **Bonewald L**, Fields GB, McMurray JS, Moore WT, Stults JT. Formation of a disulfide bond in an octreotide-like peptide: A multicenter study. In: Techniques in Protein Chemistry VII. Marshak RR (ed), Chapt. V, pp 261-274, 1996.
16. **Bonewald LF**. Transforming growth factor beta In: Principles of Bone Biology. J. Bilezikian, L. Raisz, G. Rodan (eds), Academic Press Chapt 46, pp 647-660, 1996.

17. Fields GB, Bibbs L, **Bonewald LF**, McMurray JS, Moore WT, Smith AJ, Stults JT, Williams LC, and Angeletti RH. Multi-center Study of Post-assembly Problems in Solid Phase Peptide Synthesis. In *Peptides: Chemistry, Structure and Biology*. Kaumaya PTP, Hodges RS (eds), Mayflower Scientific Ltd, pp 52-54, 1996.
18. Angeletti RH, Bibbs L, **Bonewald LF**, Fields GB, Kelly JW, McMurray JS, Moore WT, Weintraub ST. Analysis of racemization during "standard" solid phase peptide synthesis: A multicenter study. In: *Techniques in Protein Chemistry VIII*, D. Marshak RR (ed), Academic Press, Chapter 4 , pp 875-890, 1997.
19. Angeletti RH, **Bonewald LF**, Fields GB: Six Year Study of Peptide Synthesis In: *Methods In Enzymology*. Vol .289 pp 607-717, 1997.
20. **Bonewald LF**, Dallas S. The Role of Growth factors in bone formation. In: *Advances in Organ Biology, Molecular and Cellular Biology of Bone*. E. E. Bittar and M. Zaidi (ed), JAI Press, Inc. pp. 591-614, 1998.
21. **Bonewald LF**, Angeletti RH: A guide to Peptide Synthesis and Peptide Facilities for Biomolecular Research In: *Professional Societies, Association of Biomolecular Resource Facilities*, by Niece RL, Naeve C. *Encyclopedia of Bioprocess Technology*, John Wiley & Son. Vol. 5, 1-31, 1999.
22. Ambulos NP, Bibbs L, **Bonewald LF**, Kates SA, Khatri A, Medzihradsky KF, Weintraub, Analysis of Synthetic Peptides In: *Solid-Phase Peptide Synthesis: A Practical Guide*. Eds. Albericio/Kates, Marcel Dekker, Chapter 19:751-789, 2000.
23. **Bonewald LF**. Transforming growth factor beta. In: *Principles of Bone Biology*. J. Bilezikian, L. Raisz, G. Rodan (eds), Academic Press, Chapter 49, Vol. 2, 903-918, 2002.
24. **Bonewald LF**: Quality Standards and Comparative Syntheses In: *Methods of Organic Chemistry: Synthesis of Peptides and Peptidomimetics*, Murray Goodman (ed), Houben-Weyl Chapter 7.8, Vol E22b, 766-772, 2003.
25. **Bonewald LF**; Cell to Cell and Cell-Matrix Interactions in Bone. In: *Handbook of Cell Signaling Vol 3*. R. Bradshaw (ed), Academic Press, Chap. 339, 497-508, 2003.
26. **Bonewald LF**: Osteocytes. In: *Osteoporosis, Third Edition*. R. Marcus, D. Feldman, D. Nelson, C. Rosen (eds). Third Ed. Elsevier Inc., Chap 8, 169-190, 2007.
27. Klein-Nulend J, **Bonewald LF**: The Osteocyte. In: *Principles of Bone Biology, Third Edition*. J. Bilezikian, L. Raisz, TJ Martin (eds). Academic Press, Chap 8, Vol. 1. 153-174, 2008.
28. Dallas SL, Alliston A, **Bonewald LF**: Transforming growth factor beta. In: *Principles of Bone Biology*. J. Bilezikian, L. Raisz, TJ Martin (eds), Academic Press, Chapter 53, Vol. 2, 1145-1166. 2007.
29. **Bonewald, Lynda F**. Cell to Cell and Cell-Matrix Interactions in Bone. In Ralph A. Bradshaw and Edward A. Dennis, editors: *Handbook of Cell Signaling 2nd edition*, Oxford:Academic Press,2009, pp. 2647-2662.
30. **Bonewald LF**: Osteocytes. In: *Primer on Metabolic Bone Disorders of Mineral Metabolism*. Clifford Rosen, Ed in Chief, The American Society for Bone and Mineral Research, 2025 M Street, N.W., Suite 800, Washington, DC 20036-3309 7th Edition, Chapter 4, 22-26. 2008.

31. **Bonewald LF**, Dallas SL, Gorski JP “Bone Mineralization” In: The Skeletal System. Olivier Pourquoi (ed) , Cold Spring Harbor Laboratory Press Chapter 10, 277-296, 2009.
32. **Bonewald LF**, Osteocytes. In ‘Fundamentals of Osteoporosis’ edited by Robert Marcus, David Feldman, Dorothy A. Nelson and Clifford J. Rosen Academic Press, Chapter 6, 2009.
33. **Bonewald LF**, “Osteocyte Mechanosensation and Transduction” In: Mechanosensing Biology. M. Noda (ed). Springer, Japan. 2011.
34. Rosser J, **Bonewald LF**, ‘Studying Osteocyte Function using the Cell Lines MLO-Y4 and MLO-A5’ In: Bone Research Protocols, Second Edition. Miep Helfrich and Steward Ralston, (eds). The Humana Press, Inc. Springer Protocols, Methods Mol Biol. 2012;816:67-81.PMID:22130923, 2011.
35. Jaehn K, **Bonewald LF**. ‘Bone Cell Biology: Osteoblasts, Osteocytes, Osteoclasts’ In: Pediatric Bone, Second Edition. Francis Glorieux, John Pettifor, Harald Jueppner (eds). Elsevier, 2011.
36. **Bonewald, Lynda F**. Cell to Cell and Cell-Matrix Interactions in Bone. In Intercellular Signaling in Development and Disease: Edward A. Dennis and Ralph A. Bradshaw, editors: Academic Press, 2011, ISBN: 9780123822154.
37. **Bonewald, Lynda F**. “Cell Biology of Craniofacial Bone: Osteocytes” Chapter 8, in Mineralized Tissues in Oral and Craniofacial Science: Biological Principles and Clinical Correlates Eds: Laurie K. McCauley and Martha J. Somerman, Wiley-Blackwell 2012: 63-70.
38. **Bonewald LF**: Osteocytes. In: Primer on Metabolic Bone Disorders of Mineral Metabolism. Clifford Rosen, Ed in Chief, The American Society for Bone and Mineral Research, 2025 M Street, N.W., Suite 800, Washington, DC 20036-3309 8th Edition, Chapter 4, 34-42. 2013.
39. **Bonewald LF**: Osteocytes. In: Osteoporosis, Fourth Edition. R. Marcus, D. Feldman, D. Dempster, M Luckey, Jane Cauley (eds). Third Ed. Elsevier Inc., Chap 10, 209-234, 2013.
40. Bellido T, Divieti-Pajevic P, **Bonewald LF**. Osteocyte Biology. Genetics of Bone Biology and Skeletal Disease, 2nd Ed. Eds: Thakker RV, Whyte PM, Eisman J, Igarashi T. Elsevier, Chap 14, 227-236, 2017.
41. Bonetto A, **Bonewald LF**. Muscle-Bone Crosstalk. In: Basic and Applied Bone Biology, David Burr and Matt Allen (eds) 2nd Edition. 2018.
42. Klein-Nulend, J, **Bonewald, LF**: The Osteocyte. In: Principles of Bone Biology, Fourth Edition. J. Bilzikian, TJ Martin, T Clemens, C Rosen (eds). Academic Press, 2019.
43. Prideaux M, **Bonewald LF**: Osteocytes: More than Mechanosensory Cells. In: Encyclopedia of Bone Biology, M Zaidi, ed. New York:Elsevier, 2020.
44. **Bonewald LF**: Osteocytes: in Marcus and Feldman’s Osteoporosis, Chapter 7, 135-154, D Dempster, J Cauley, M Bouxsein, F Cosman (eds) Fifth Edition, Elsevier, (ISBN 978-0-12-813073-5). 2020.

45. Prideaux M, Stern A, **Bonewald LF**: Methods Molecular Biology, Vol. 2221, Andre J. van Wijnen and Marina S. Ganshina (Eds): Osteoporosis and Osteoarthritis, PMID: 32979194 DOI: 10.1007/978-1-0716-0989-7_1, 2021.
46. Prideaux M, **Bonewald LF**, Dallas SL Osteocytes. Chapter for ASBMR Primer on the Metabolic Bone Diseases and Disorders of Mineral Metabolism, 10th Edition. 2025
47. Dang NH, Subjeck B, Liu Y, O'Connell T, **Bonewald L**, Brotto M, Award K "Lipidomics in skeletal muscle: Unveiling the roles of lipid mediators in muscle biology" Chapter 37 in Lipid Analysis in Biology, Health, and Disease, Elsevier. 2025.

Editorships

1. **Bonewald LF**, Krebsbach, P *Guest Editors*; Chemistry and Biology of Mineralized Tissues. IN: Cells, Tissues, Organs S Karger AG, Basel, Vol 189: 1-4, pp 1-306, 2009.
2. **Bonewald LF**, Kneissel M, Johnson M. Guest Editors: Bone June 2013. The Osteocyte. PMID 23486185.
3. **Bonewald LF**, Hamrick, M Section Editors for "Muscle and Bone"; *Current Osteoporosis Reports*. 2014-present.
4. Khosla S, DeCabo R, **Bonewald L** Guest Editors: *Bone* June 2019. "Aging of the Musculoskeletal System".

2. Papers published or in press

1. Lewis UJ, Peterson SM, **Bonewald, LF**, Seavey BK, Vanderlaan WP: An interchain disulfide dimer of human growth hormone. J Biol Chem 252:3697-3702, 1977.
2. Lewis UJ, Dunn JT, **Bonewald LF**, Seavey BK, Vanderlaan WP: A naturally occurring structural variant of human growth hormone. J Biol Chem 253:2679-2687, 1978.
3. Lewis UJ, Singh RNP, **Bonewald LF**, Lewis LS, Vanderlaan WP: Human growth hormone: Additional members of the complex. Endocrinology 104:1256-1265, 1979.
4. Lewis UJ, **Bonewald, LF**, Lewis LS: A 20,000 dalton variant of human growth hormone: Location of the amino acid deletions. Biochem Biophys Res Commun 92:511-516, 1980.
5. Lewis UJ, Singh RNP, **Bonewald LF**, Seavey BK: Altered proteolytic cleavage of human growth hormone as a result of deamidation. J Biol Chem 256:11645-11650, 1981.
6. **Bonewald L**, Wang AC, Terry E, Zwerner R, Balch CM, Ades EW: Molecular comparison of mouse Thy 1 and its human homologue. Molec Immunol 19:497-501, 1982.
7. Boackle J, Vesely J, **Bonewald L**, Wang AC: Restriction of CI hemolytic function by human proline-rich salivary proteins. Molec Immunol, 21:415-420, 1984.
8. **Bonewald L**, Wang AC, Wang IY, Balch CM, Ades EW: Antigenic determinant(s) shared by the human Thy 1 and human IgG. Immunobiology 166:428-438, 1984.
9. **Bonewald L**, Ades EW, Tung E, Marchalonis JJ, Wang AC: Biochemical characterization of human Thy 1. J Immunogenetics 11:283-296, 1984.

10. **Bonewald L**, Goust JM, Sade R, Wang AC: Isolation and characterization of Thy 1 homologue from human thymus. *Thymus* 4:199-209, 1985.
11. **Bonewald L**, Virella G, Wang AC: Evidence for the biclonal nature of a Waldenstrom's macroglobulinemia. *Clinica Chimica Acta* 146:53-63, 1985.
12. Sabatini M, Boyce B, Aufdemorte T, **Bonewald L**, Mundy G: Infusions of recombinant human interleukin-1 alpha and cause hypercalcemia in normal mice. *Proc Natl Acad Sci* 85:5235-5239, 1988.
13. Boyan BD, Schwartz Z, **Bonewald LF**, Swain LD: Localization of 1,25(OH)₂D₃-responsive alkaline phosphatase in osteoblast-like cells (ROS 17/2.8, MG-63 and MC3T3) and growth cartilage cells in culture. *J. Biol Chem* 264:11879-11886, 1989.
14. Oreffo ROC, Mundy G, Seyedin S, **Bonewald LF**: Activation of the bone-derived latent TGF beta complex by isolated osteoclasts. *Biochem Biophys Res Comm* 158:817-823, 1989.
15. Williams DM, **Bonewald LF**, RoodmanGD, Byrne GI, Schachter J: Tumor necrosis factor α is a cytotoxin induced by murine Chlamydia Trachomatis infection. *Infection and Immunity* 57:1351-1355, 1989.
16. Pfeilschifter J, **Bonewald L**, Mundy G: Characterization of the latent transforming growth factor beta complex in bone. *J Bone Miner Res* 5:49-58, 1990.
17. Kukita A, **Bonewald L**, Rosen D, Seyedin S, Mundy GR and Roodman GD: Osteoinductive factor (OIF) inhibits formation of human osteoclast-like cells. *Proc Natl Acad Sci* 87:2023-2026, 1990.
18. Sabatini M, Chavez J, Mundy GR, **Bonewald LF**, Stimulation of tumor necrosis factor α release from monocytic cells by the A375 human melanoma via granulocyte macrophage colony stimulating factor. *Cancer Res* 50:2673-2678, 1990.
19. Sabatini M, Yates A, Garrett I, Chavez J, Dunn J, **Bonewald L**, Mundy GR, Increased production of tumor necrosis factor α by normal immune cells in model of the humoral hypercalcemia of malignancy. *Lab Clin Invest* 63:676-681, 1990.
20. Clibon U, **Bonewald LF**, Caro J, Roodman GD, Erythropoietin fails to reverse the anemia in mice continuously exposed to tumor necrosis factors α a in vivo. *Expt Hematol* 18:438-441, 1990.
21. Williams DM, Magee DM, **Bonewald LF**, Smith JG, Bleicker CA, Byrne GI, Schachter J, A role in vivo for tumor necrosis factor α in host defense against Chlamydia Trachomatis. *Infection and Immunity* 58:1572-1576, 1990.

22. Garrett IR, Boyce BF, Oreffo ROC, **Bonewald LF**, Poser J, Mundy GR, Oxygen - derived free radicals stimulate osteoclastic bone resorption in rodent bone in vitro and in vivo. J Clin Invest 85:632-639, 1990.
23. Oreffo ROC, **Bonewald LF**, Kukita A, Garrett IR, Seyedin SM, Rosen D, Mundy GR, Inhibitory effects of the of the bone-derived growth factors osteoinductive factor and transforming growth factor beta on isolated osteoclasts. Endocrinology 126:3069-3075, 1990.
24. **Bonewald LF**, Schwartz Z, Swain LD, Ramirez V, Poser J, Boyan BD, Stimulation of plasma membrane and matrix vesicle enzyme activity by transforming growth factor beta in osteosarcoma cell cultures. J Cell Physiol 145:200-206, 1990.
25. Boyan BD, **Bonewald LF**, Swain L, Ramirez V, Poser J, Schwartz Z. Stimulation of Matrix Vesicle Enzyme Activity Suggests a possible role for TGF beta in Bone Healing. The International Society for Fracture Repair 1990.
26. Dennis R, Schwartz Z, Swain L, Gomez R, Ramirez V, **Bonewald LF**, Boyan B. Vitamin D Metabolites Regulate Prostaglandin Production in Costochondral chondrocyte Cultures. Orthopaedic Research Society, Anaheim CA 1991.
27. Yoneda T, Alsina MM, Chavez JB, **Bonewald L**, Nishimura R, Mundy GR: Evidence that splenic cytokines play a pathogenetic role in the paraneoplastic syndromes of cachexia, hypercalcemia and leukocytosis in a human tumor in nude mice. J Clin Invest 87:977-985, 1991.
28. **Bonewald LF**, Wakefield L, Oreffo ROC, Escobedo A, Twardzik DR, Mundy GR. Latent forms of transforming growth factor-beta derived from bone cultures: Identification of a naturally occurring 100 kDa complex with similarity to recombinant latent TGF beta. Molecular Endocrinology 5:741-751, 1991.
29. Windeler AS, **Bonewald LF**, Khare AG, Boyan BD, Mundy GR. The influence of sputtered bone substitutes on cell growth and phenotype expression. In the Bone Biomaterial Interface. Davies JE (ed), Univ. of Toronto Press, pp. 205-213, 1991.
30. Schwartz Z, Dennis R, **Bonewald LF**, Swain L, Gomez R, Boyan BD. Differential regulation of prostaglandin E₂ synthesis and phospholipase A₂ activity by 1,25-(OH)₂D₃ in three osteoblast-like cell lines (MC-3T3-E1, ROS 17/2.8, & MG-63). Bone 13:51-58, 1992.
31. **Bonewald LF**, Kester MB, Schwartz Z, Swain LD, Khare A, Johnson TL, Leach KJ, Boyan BD. Effects of combining transforming growth factor (TGF beta) and 1,25 dihydroxyvitamin D₃ on differentiation of a human osteosarcoma (MG-63) J Biol Chem 267:8943-8949, 1992.

32. Yates AJ, Boyce BF, Favarato G, Aufdemorte TB, Marcelli L, Kester MB, Walker R, Langton BC, **Bonewald LF**, Mundy GR. Expression of human transforming growth factor α by Chinese Hamster ovarian tumors in nude mice causes hypercalcemia which is potentiated by parathyroid hormone related protein. *J Bone Miner Res* 7:847-853, 1992.
33. **Bonewald LF**, Schwartz Z, Swain LD, Boyan BD. Stimulation of matrix vesicle enzyme activity in osteoblast-like cells by $1,25(\text{OH})_2\text{D}_3$ and transforming growth factor beta (TGF beta). *Bone Miner* 17:139-144, 1992.
34. Magee DM, Smith JG, Bleicker CA, Carter CJ, **Bonewald LF**, Schachter J, Williams DM. Chlamydia trachomatis pneumonia induces in vivo production of interleukin-1 and -6. *Infect Immun* 60:1217-1220, 1992.
35. Mundy GR, Roodman GD, **Bonewald LF**, Yoneda T, Sabatini M. Effects of TNF and lymphotoxin on bone cells. *Immunol Ser* 56:483-498, 1992.
36. Oreffo ROC, Marshall GJ, Kirchen M, Gallwitz W, Chavez J, Mundy GR, **Bonewald LF**. Characterization of a cell line derived from a human giant cell tumor which stimulates osteoclastic bone resorption. *Clin Orth Rel Res* 296:229-241, 1993.
37. Gallwitz WE, Mundy GR, Lee CH, Qiao M, Roodman GD, Gaskell SJ, **Bonewald LF**: 5-Lipoxygenase metabolites of arachidonic acid stimulate isolated osteoclasts to resorb calcified matrices. *J Biol Chem* 368:10087-10094, 1993.
38. Schwartz Z, **Bonewald LF**, Caulfield K, Brooks B, Boyan BD. Direct effects of TGF beta on chondrocytes are modulated by vitamin D metabolites in a cell maturation specific manner. *Endocrinology* 132:1544-1552, 1993.
39. Allendoerfer R, Magee DM, Smith JG, **Bonewald L**, Graybill JR. Induction of tumor necrosis factor alpha in murine Candida albicans infection. *J Infect Dis* 167:1168-1172, 1993.
40. Guise TA, Garrett IR, **Bonewald LF**, Mundy GR. The interleukin-1 receptor antagonist inhibits hypercalcemia mediated by interleukin-1. *J Bone Miner Res* 8:583-588, 1993.
41. Garrett IR, Guise TA, **Bonewald LF**, Chizzonite R, Mundy GR. Evidence that interleukin 1 mediates its effects on bone resorption via the 80 kilodalton interleukin-1 receptor. *Calcif Tissue Int* 52:438-441, 1993.
42. Yoneda T, Kato I, **Bonewald LF**, Burgess WH, Mundy GR. A novel cytokine with osteoclastopoietic activity. *J Periodont Res* 28:521-522, 1993.
43. Dean DD, Schwartz Z, **Bonewald L**, Muniz OE, Morales S, Gomez R, Brooks BP, Qiao M, Howell DS, Boyan BD. Matrix vesicles produced by osteoblast-like cells in culture become significantly enriched in proteoglycan-degrading metalloproteinases after addition of -glycerophosphate and ascorbic acid. *Calcif Tissue Int* 54:399-408, 1994.

44. Harris SE, **Bonewald LF**, Sabatini M, Dallas S, Fing J, Wozney J, Mundy GR. Effects of TGF beta on bone nodule formation and expression of bone morphogenetic protein 2, osteocalcin, osteopontin, alkaline phosphatase and type I collagen mRNA in prolonged cultures of fetal rat calvarial osteoblasts. *J Bone Miner Res* 9:855-863, 1994.
45. Dallas SL, Park-Snyder S, Miyazono K, Twardzik D, Mundy GR, **Bonewald LF**. Characterization and autoregulation of latent factor beta (TGF beta) complexes in osteoblast-like cell lines: Production of a latent complex lacking the latent TGF beta-binding protein (LTBP). *J Biol Chem* 269:6815-6822, 1994.
46. Boyan BB, Schwartz Z, Snyder SP, Dean DD, Yang F, Twardzik D, **Bonewald LF**. Latent transforming growth factor-beta is produced by chondrocytes and activated by extracellular matrix vesicles upon exposure to $1,25(\text{OH})_2 \text{D}_3$. *J Biol Chem* 269:28374-28381, 1994.
47. Dallas SL, Miyazono K, Skerry TM, Mundy GR, **Bonewald LF**. Dual role for the latent transforming growth factor beta binding protein (LTBP) in storage of latent TGF beta in the extracellular matrix and as a structural matrix protein. *J Cell Biol* 131:539-549, 1995.
48. Chen D, Chen H, Feng JQ, Windle JJ, Harris MA, **Bonewald LF**, Boyce BF, Wozney JM, Mundy GR, Harris SE: Osteoblastic cell lines derived from a transgenic mouse containing osteocalcin promoter driving SV40 T antigen. *Mol Cell Diff* 3:193-212, 1995.
49. Marra F, **Bonewald LF**, Park-Snyder S, Park I, Woodruff KA, Abboud HE. Characterization and regulation of the latent transforming growth factor beta - complex secreted by vascular pericytes. *J Cell Physiol* 166:537-546, 1996.
50. Garcia C, Qiao M, Chen D, Gallwitz W, Mundy GR, Kirchen M, **Bonewald LF**. Effects of synthetic peptido-leukotrienes on bone resorption in vitro. *J Bone Miner Res* 11:521-529, 1996.
51. Garcia C, Boyce B, Gilles J, Dallas M, Qiao M, Mundy GR, **Bonewald LF**. Leukotriene B_4 stimulates osteoclastic bone resorption both in vitro and in vivo. *J Bone Miner Res* 11:1619-1629, 1996.
52. Raval P, Hsu HHT, Schneider DJ, Sarras MP, Masuhara K, **Bonewald LF**, Anderson HC. Expression of bone morphogenetic proteins by osteoinductive and non-osteoinductive human osteosarcoma cells. *J Dental Res* 75:1518-1523, 1996.
53. Gilles JA, Carnes DL, Dallas MR, Holt SC, **Bonewald LF**. Oral bone loss is increased in ovariectomized rats. *J Endodontics* 23:419-422, 1997.
54. **Bonewald LF**, Oreffo ROC, Lee CH, Park-Snyder S, Twardzik D, Mundy GR. Role of vitamin A in activation of latent TGF beta by osteoclasts and failure of osteoclasts to release active TGF beta from non-acid-dissociable complex. *Endocrinology* 138:657-666, 1997.

55. Kato Y, Windle J, Koop B, Qiao M, **Bonewald L**. Establishment of an osteocyte-like cell line, MLO-Y4 J Bone Min. Res. 12:2014-2023, 1997.
56. **Bonewald L**, Flynn M, Qiao M, Dallas MR, Mundy GR, Boyce BR: Mice lacking 5-lipoxygenase have increased cortical bone thickness. Adv. Exp. Med. Biol. 433:299-302, 1997.
57. Traianedes K, Dallas MR, Garrett IR, Mundy GR, **Bonewald LF**: 5-lipoxygenase metabolites inhibit bone formation in vitro. Endocrinol. 139:3178-3184, 1998.
58. Pedrozo HA, Schwartz Z, Gomez R, Ornoy A, Xin-Sheng W, Dallas SL, **Bonewald LF**, Dean DD, Boyan, BD Growth plate chondrocytes store latent transforming growth factor (TGF)-beta 1 in their matrix through latent TGF-beta 1 binding protein-1. J. Cell. Physiol. 177:343-354, 1998.
59. **Bonewald LF**, Bibbs L, Kates SA, Khatri A, Medzihradszky KF, McMurray JS, Weintraub S 1997 ABRF Peptide synthesis research committee study on a peptide containing a phosphorylated tyrosine. In: Peptides, Frontiers of Peptide Science Eds JP Tam and PTP Kaumaya (Kluwer Acad. Pub.) 305-6, 1999.
60. Flynn MA, Qiao M, Garcia C, Dallas M, **Bonewald LF**: Avian Osteoclasts increase bone resorption in response to and possess receptors for Leukotriene B4. Calcified Tissue International 64: 154-159, 1999.
61. **Bonewald LF**, Bibbs L, Kates SA, Khatri A, Medzihradszky KF, McMurray JS, Weintraub S: Study on the Synthesis and Characterization of Peptides containing Phosphorylated Tyrosine. J of Peptide Res. 53:162-169, 1999.
62. Pedrozo HA, Schwartz Z, Mokeyev T, Ornoy A, Xin-Sheng W, **Bonewald LF**, Dean DD, Boyan BD Vitamin D3 metabolites regulate LTBP1 and latent TGF-beta1 expression and latent TGF-beta1 incorporation in the extracellular matrix of chondrocytes. J. Cell. Biochem. 72:151-165, 1999.
63. **Bonewald LF** Establishment and characterization of an osteocyte-like cell line, MLO-Y4, J Bone Miner Metab, 1999; 17(1):61-5.
64. Horiuchi K, Amizuka N, Takeshita S, Takamatsu H, Katsuura M, Ozawa H, Toyama Y, **Bonewald LF**, Kudo A Identification and characterization of a novel protein, periostin, with restricted expression to periosteum and periodontal ligament and increased expression by transforming growth factor beta. J. Bone Min. Res 14:1239-1249, 1999.
65. Angeletti, RH, **Bonewald LF**, De Jongh K, Niece R, Rush J, Stults J Research Technologies: Fulfilling the Promise FASEB J Vol 13: 595-601, 1999.
66. Pedrozo HA, Schwartz Z, Robinson M, Gomez R, Dean DD, **Bonewald LF**, Boyan BD Potential mechanisms for the plasmin-mediated release and activation of latent transforming growth factor-beta1 from the extracellular matrix of growth plate chondrocytes. Endocrinology 140: 5806-5816, 1999.

67. Schwartz Z, Lohmann CH, Oefinger J, **Bonewald LF**, Dean DD, Boyan BD Implant surface characteristics modulate differentiation behavior of cells in the osteoblastic lineage *Advances in Dental Research* 13:38-48, 1999.
68. Lohmann CH, **Bonewald LF**, Sisk MA, Sylvia VL, Cochran DL, Dean DD, Boyan BD, Schwartz Z Maturation state determines the response of osteogenic cells to surface roughness and 1,25 (OH)₂D₃. *J. Bone. Min. Res.* 15:1169-1180, 2000.
69. Schwartz Z, Lohmann CH, Wieland M, Cochran DL, Dean DD, Textor M, **Bonewald LF**, Boyan BD Osteoblast proliferation and differentiation on dentin slices are modulated by pretreatment of the surface with tetracycline or osteoclasts. *J. Periodontology* 71:586-97, 2000.
70. Dallas, SL, Keene DR, Bruder, SP, Saharinen J, Sakai LY, Mundy GR, **Bonewald LF**, Role of the latent transforming growth factor beta binding protein 1 in fibrillin-containing microfibrils in bone cells in vitro and in vivo. *J. Bone Min. Res.* 14:68-81, 2000.
71. **Bonewald, LF**, Boskey, A, Camacho, N, Kato, Y Potential Mineralization by Osteocyte-like Cell Lines *Chemistry and Biology of Mineralized Tissues* 267-270, 2000.
72. Cheng B, Zhao S, Luo J, Sprague E, **Bonewald LF**, Jiang, JX Expression of functional gap junctions and regulation by fluid flow in osteocyte-like MLO-Y4 cells *J. Bone Min. Res.* 16:249-259, 2001.
73. Kato Y, Boskey A, Spevak L, Dallas M, Hori M, **Bonewald LF**, Establishment of an Osteoid Pre-Osteocyte like cell, MLO-A5, that spontaneously mineralizes in culture without the addition of beta-glycerol phosphate and ascorbic acid. *J. Bone Min. Res.* 16:1622-1633, 2001.
74. Cheng B, Kato Y, Zhao S, Luo J, Sprague E, **Bonewald LF**, Jiang JX Prostaglandin E₂ is essential for gap junction-mediated intercellular communication between osteocytes in response to mechanical strain. *Endocrinology* 142:3464-3473, 2001.
75. Witz CA, Montoya-Rodriguez IA, Cho S, Centonze VE, **Bonewald LF**, and Schenken RS, Composition of the Extracellular Matrix of the Peritoneum, *J. Soc. Gynecol. Investig.* 8:299-304, 2001.
76. Boyan BD, **Bonewald LF**, Sylvia VL, Nemere I, Larsson D, Norman AW, Rosser J, Dean DD, Schwartz Z Evidence for Distinct Membrane Receptors for 1,25(OH)₂D₃ and 24R,25-(OH)₂D₃ in Osteoblasts *Steroids*, 2002 March;67(3-4):235-46.
77. Lohmann CH, Dean DD, **Bonewald, LF**, Schwartz Z, Boyan BB Production of Nitric Oxide and Prostaglandin E₂ by Osteogenic Cells in Response to Ultra-High Molecular Weight Polyethylene particles is Dependent on Cell Maturation State. *J Bone Joint Surg. Am*, 2002 March; 84-A(3):411-9.

78. Dallas S, Rosser J, Mundy GR, **Bonewald LF**, Osteoclasts release latent TGF beta from bone matrix via cleavage of the latent TGF beta binding protein-1. *J Biol Chem.* 277:21352-60, 2002.
79. Boyan BD, **Bonewald LF**, Paschalis EP, Lohman CH, Rosser, J, Cochran, DL, Dean DD, Schwartz, Z, Boskey, AL Osteoblast-mediated Mineral Deposition in Culture is Dependent on Surface Microtopography. *Calc. Tissue Int.*, 2002
80. Zhao S, Kato Y, Zhang Y, Harris S, Ahuja S., **Bonewald L**, MLO-Y4 Osteocyte-like Cells Support Osteoclast Formation and Activation. *J Bone Min Res* 17:2068-2079, 2002.
81. **Bonewald LF**, Harris SE, Rosser J, Dallas M, Dallas S, Camacho NP, Boyan BD, Boskey AL Von Kossa staining is not specific for biological mineralization. *Calc. Tiss. Intl.* 72:537-47, 2003.
82. Ahuja SS, Zhao S, Bellido T, Plotkin LI, Sato N, **Bonewald LF**, CD40 ligand blocks apoptosis induced by tumor necrosis factor alpha, glucocorticoids, and etoposide in osteoblasts and the osteocyte-like cell line murine long bone osteocyte-Y4. *Endocrinology.* 144(5):1761-9, 2003.
83. Lohmann CH, Schwartz Z, Liu Y, Li Z, Simon BJ, Sylvia VL, Dean DD, **Bonewald LF**, Donahue HJ, and Boyan BD, Pulsed Electromagnetic Fields Affect Phenotype and Connexin 43 Protein Expression in MLO-Y4 Osteocyte-like Cells and ROS 17/2.8 Osteoblast-like Cells, *J. Orthop. Res.* 21: 326-334, 2003.
84. Gluhak-Heinrich J, **Bonewald LF**, Feng JQ, MacDougall M, Harris SE, and Pavlin D, Mechanical Loading Stimulates Dentin Matrix Protein 1 (DMP1) Expression Osteocytes In Vivo, *J Bone Min Res* 18:807-17, 2003.
85. Remmer H, Ambulos N, **Bonewald, LF**, Dougherty J, Eisenstein E, Fowler E, Johnson J, Khatri A, Lively M, Ritter N, Weintraub S. Synthetic Peptides as Certified Analytical Standards. *Peptide Revolution: Genomics, Proteomics & Therapeutics*, Michael Chorev and Tomi K. Sawyer (Eds). American Peptide Society, 2003.
86. Chen'an PP, Cheng B, Gu Su, Sprague E, **Bonewald LF**, Jiang JX, Signalling through the Prostaglandin E2 Receptor (EP2) is Essential for Gap Junction-mediated Intercellular Communication between Osteocytes in Response to Mechanical Strain. *J. Biol. Chem.* 278:43146-56, 2003.
87. Feng JQ, Huang H, Lu Y, Ye L, Xie Y, Tsutsui T, Kunieda T, Castranio T, Scott G, **Bonewald L**, Mishina Y, The Dentin Matrix Protein 1 (Dmp1) is Specifically Expressed in Mineralized, but not Soft Tissues during Development. *J. Dent. Res.* 82:776-80, 2003.
88. Karsdal MA, Andersen TA, **Bonewald L**, Christiansen C, Matrix metalloproteinases (MMPs) safeguard osteoblasts from apoptosis during trans-differentiation into osteocytes: MT1-MMP maintains osteocyte viability. *DNA and Cell Biology* 23:155-65, 2004.

89. Yang W, Kalajzic I, Lu Y, Guo D, Harris MA, Gluhak-Heinrich J, **Bonewald LF**, Feng JQ, Rowe DW, Harris SE In vitro and in vivo study on osteocyte-specific mechanical signaling pathways J Musculoskel Neuron Interact 4:386-387, 2004.
90. Dallas SL, Zhao S, Cramer S, Chen Z, Peehl DM, **Bonewald LF**, Preferential production of the Latent Transforming Growth Factor Beta-2 by Prostatic Epithelial Cells and its Activation by Prostate Specific Antigen J. Cell. Phys. 202:361-70, 2005.
91. Ye L, Mishina Y, Chen D, Huang H, Dallas S, Dallas M, Kunieda T, Tsutsui T, Boskey A, **Bonewald LF**, Feng JQ., Dentin Matrix Protein 1 (Dmp1) Deficient Mice Display Severe Defects in Cartilage Formation Responsible for a Chondrodysplasia-like Phenotype J. Biol. Chem. 280:6197-6203, 2005.
92. Nicolella DP, **Bonewald LF**, Moravits DE, Lankford J. Measurement of microstructural strain in cortical bone. Eur. J Morphol 42:23-9, 2005.
93. Yang W, Lu Y, Kalajzic I, Guo D, Harris MA, Gluhak-Heinrich J, Kotha S, **Bonewald LF**, Feng JQ, Rowe DW, Turner CH, Robling AG, Harris SE Dentin Matrix Protein 1 Gene Cis-Regulation: Use in Osteocytes to Characterize Local Responses to Mechanical Loading In vitro and In vivo J. Biol. Chem. 280: 20680-90, 2005.
94. Cherian PP, Wang X, Gu S, **Bonewald LF**, Sprague E, Jiang JX Mechanical Strain Opens Connexin 43 Hemichannels in Osteocytes: A Novel Mechanism for the Release of Prostaglandin Mol. Biol. Cell. 16:3100-6, 2005.
95. Nicolella DP, Moravits DE, Gale AM, **Bonewald, LF**, Lankford J, Osteocyte lacunae tissue strain in cortical bone, J. Biomech. 39:1735-43, 2006.
96. Barragan-Adjemian C, Nicolella D, Dusevich V, Dallas M, Eick JD, **Bonewald LF**, A Proposed Model for the Mineralization of Bone”, 8th ICCMBT Oct 17-22, 2004, 47-50, 2006.
97. Qin C, Baba O, Brunn JC, McKee M.D., **Bonewald, L**, Butler WT, “Unique Similarities between Dentin Matrix Protein 1 and Dentin Sialophosphoprotein, 8th ICCMBT Oct 17-22, 2004, 174-177, 2006.
98. Baba O, Qin Ch, Brunn JC, **Bonewald, LF**, Terashima T, Butler, WT., “Differential Localization of Fragments of Dentin Matrix Protein 1 (DMP1) in Developing Rat Molar and Alveolar Bone, 8th ICCMBT Oct 17-22, 2004, 143-146, 2006.
99. Ye L, Huang H, Lu Y, **Bonewald L**, MacDougall M, and Feng JQ, “Dentin Matrix Protein 1 (DMP1) is Essential for Normal Development of Both Endochondral and Intramembranous Bone during Craniofacial Development” 8th ICCMBT Oct 17-22, 2004, 204-7, 2006.

100. Lane NE, Yao W, Balooch M, Krumme A, Habelitz S, Kinney JH, **Bonewald, LF**, Glucocorticoid-treated mice have localized changes in trabecular bone material properties and osteocyte lacunar size that are not observed in placebo-treated or estrogen-deficient mice, *J. Bone Min Res* 21:466-76, 2006.
101. Zhang K, Barragan-Adjemian C, Ye L, Kotha K, Dallas M, Lu Y, Zhao S, Harris M, Harris SE, Feng JQ, **Bonewald LF**, E11/gp38 Selective Expression in Osteocytes: Regulation by Mechanical Strain and Role in Dendrite Elongation *Mol Biol Cell* 26:4539-52, 2006.
102. Barragan-Adjemian C, Nicolella D, Dusevich V, Dallas MR, Eick JD, **Bonewald LF**, Mechanism by which MLO-A5 late osteoblasts/early osteocytes mineralize in culture: similarities with mineralization of lamellar bone. *Cal. Tiss. Int.*79:340-53, 2006.
103. Xiao Z, Zhang S, Mahlios J, Zhou G, Magenheimer BS, Guo D, Calvet JP, **Bonewald L**, Quarles LD. Polycystin-1: A Novel Mechanosensor in Osteoblast/ Osteocytes Coupled to *Runx2* *J. Biol. Chem* 281: 30,884-95, 2006.
104. Kono SJ, Oshima Y, Hoshi K, **Bonewald LF**, Oda H, Nakamura K, Kawaguchi H, Tanaka S. Erk Pathways Negatively regulate Matrix Mineralization *Bone* 40:68-74, 2007.
105. Feng JQ, Ward LM, Liu S, Lu Y, Xie Y, Yuan B, Yu X, Rauch F, Davis SI, Zhang S, Rios H, Drezner MK, Quarles LD, **Bonewald LF**, White KE. Loss of DMP1 causes rickets and osteomalacia and identifies a role for osteocytes in mineral metabolism. *Nat Genet* 38:1310-5, 2006.
106. Rath Bonivitch A, **Bonewald LF**, Nicolella DP. Tissue strain amplification at the osteocyte lacuna: A microstructural finite element analysis. *J Biomech*, 40:2199-206, 2007.
107. Lu Y, Xie Y, Zhang X, Dusevich V, **Bonewald, LF**, Feng JQ DMP1-targeted Cre expression in odontoblasts and osteocytes. *J. Dent Res* 86:7-15, 2007.
108. Xu X, Chen Z, Wang Y, **Bonewald LF**, Steffensen, B Inhibition of MMP-2 Gelatinolysis by targeting exodomain-substrate interactions. *Biochem J.* 15:147-55, 2007.
109. Kuner T, Li Y, Gee K.R., **Bonewald LF**, Augustin GJ Photolysis of a caged peptide reveals rapid action of N-ethylmaleimide sensitive factor before neurotransmitter release. *Proc. Nat. Acad. Sci.* 105:347-52, 2008.
110. Feng JQ, Scott G, Guo D, Jiang B, Harris M, Ward T, Ray M, **Bonewald LF**, Harris SE, Mishina Y Generation of a conditional null allele for *Dmp1* in mouse. *Genesis* 46:87-91, 2008.
111. Huang B, Maciejewska I, Sun Y, Peng T, Qin D, Lu Y, **Bonewald L**, Butler WT, Feng J, Qin C. Identification of Full-Length Dentin Matrix Protein 1 in Dentin and Bone. *Calcif Tissue Int.* 82:401-10, 2008. PMID: 18488132

112. Ye L, Zhang S, Ke H, **Bonewald LF**, Feng J. Periodontal breakdown in the dmp1 null mouse model of hypophosphatemic rickets. *J Dent Res* 87:624-9, 2008. PMID 18573980
113. Rios HF, Ma D Xie Y, Giannobile WV, **Bonewald LF**, Conway SJ, Feng JQ. Periostin is essential for the integrity and function of the periodontal ligament during occlusal loading in mice. *J Periodontol.* 79:1480-1490, 2008. PMID 18672999
114. Siller-Jackson AF, Burra S, Gu S, Xia X, **Bonewald LF**, Sprague E, Jiang JX Adaptation of connexin 43-hemichannel prostaglandin release to mechanical loading. *J Biol Chem* 283:26374-82, 2008 PMID 18676366
115. Maciejewski I, Qin D, Huang B, Sun Y, Mues G, Svoboda K, **Bonewald L**, Bulter WT, Feng J, Qin C. Distinct compartmentalization of Dentin Matrix Protein 1 fragments in mineralized tissues and cells. *Cells Tissues Organs* 189: 186-191, 2008 PMID 18698129
116. Peng T, Huang B, Sun Y, Lu Y, **Bonewald L**, Chen S, Butler WT, Feng J, D'Souza RN, Qin C. Blocking of proteolytic processing and deletion of glycosaminoglycan side chain of mouse DMP1 by substituting critical amino acid residues. *Cells tissues Organs* 189: 192-197, 2008 PMID 18698130
117. Barragan-Adjemian C, Lausten L, Ang DB, Johnson M, Katz J, **Bonewald LF**. Bisphosphonate-related osteonecrosis of the jaw: Model and diagnosis with Cone Beam Computerized Tomography *Cells Tissues Organs* 189:284-288, 2008 PMID 18703870.
118. Dallas SL, Veno PA, Rosser JL, Barragan-Adjemian C, Rowe DW, Kalajzic I, **Bonewald, LF** Time lapse Imaging Techniques for Comparison of Mineralization Dynamics in Primary Murine Osteoblasts and the Late Osteoblast/Early Osteocyte-Like Cell Line MLO-A5. *Cells Tissues Organs* 189:6-11, 2008 PMID 18728354.
119. Lu Y, Qin C, Xie Y, **Bonewald LF**, Feng JQ Studies of the DMP1 57kDa Functional Domain both in vivo and in vitro *Cells Tissues Organs* 189:175-185, 2008 PMID 18728349.
120. Yang W, Harris MA, Heinrich JG, Guo D, **Bonewald LF**, Harris SE Gene expression signatures of a fibroblastoid preosteoblast and cuboidal osteoblast cell model compared to the MLO-Y4 osteocyte cell model. *Bone* 44:32-45, 2008 PMID 18973839.
121. Farrow EG, Davis SI, Ward LM, Summers, LF, Bubbear JS, Keen R, Stamp TC, Baker LR, **Bonewald LF**, White KE Molecular analysis of DMP1 mutants causing autosomal recessive hypophosphatemic rickets. *Bone* 44:287-94, 2008 PMID 19007919.
122. Nicolella DP, Feng JQ, Moravits DE, Bonivitch AR, Wang Y, Dusevich V, Yao W, Lane, N, **Bonewald LF**, Effects of nanomechanical bone tissue properties on bone tissue strain:implications for osteocyte mechanotransduction. *JMNI* 8: 330-1, 2008 PMID 19147962.
123. Henriksen K, Neutzsky-Wulff AV, **Bonewald LF**, Karsdal MA Local communication on and within bone controls bone remodeling. *Bone* 44:1026-44, 2009. PMID 19345750.

124. Wang L, Singh M, **Bonewald LF**, Detamore MS Signalling strategies for osteogenic differentiation of human umbilical cord mesenchymal stromal cells for 3D bone tissue engineering. *J Tissue Eng Regen Med* 33:398-404, 2009 PMID 19434662.
125. Sittichockechaiwut A, Scutt AM, Ryan AF, **Bonewald LF**, Reilly GC Use of rapidly mineralizing osteoblasts and short periods of mechanical loading to accelerate matrix maturation in 3D scaffolds. *Bone* 44:822-9, 2009 PMID 19442630.
126. Amano S, Sekine K, **Bonewald LF**, Ohmori Y A novel osteoclast precursor cell line, 4B12, recapitulates the features of primary osteoclast differentiation and function: Enhanced transfection efficiency before and after differentiation. *J Cell Physiol* 221:40-53 2009 PMID 19492422.
127. Atkins GJ, Weldon KJ, Wijenayaka AR, **Bonewald L**, Findlay DM Vitamine K promotes mineralization, osteoblast to osteocyte transition, and an anti-catabolic phenotype by (gamma) carboxylation dependent and independent mechanisms. *Am. J. Physiol Cell Physiol* 297: 1358-67 2009. PMID: 19675304
128. Xia X, Batra N, Shi Q, **Bonewald LF**, Sprague E, Jiang JX Prostaglandin promotion of osteocyte gap junction function through transcriptional regulation of Connexin 43 by GSK-3(beta)catenin signaling. *Mol Cell Biol* 30:206-19 2009 PMID 19841066.
129. Wang L, Dormer NH, **Bonewald L**, Detamore MS. Osteogenic differentiation of human umbilical cord mesenchymal stromal cells in polyglycolic acid scaffolds. *Tissue Eng Part A*. 16:1937-1948, 2010, PMID: 20070186
130. Rath AL, **Bonewald LF**, Ling J, Jiang JX, Van Dyke MR, Nicolella DP Correlation of cell strain in single osteocytes with intracellular calcium but not intracellular nitric oxide in response to fluid flow. *J.Biomech* 43:1560-4 2010 PMID 20189178.
131. Kramer I, Halleux C, Keller H, Pegurri M, Gooi JH, Weber PB, Feng JQ, **Bonewald LF**, Kneissel M Osteocyte Wnt/beta-catenin Signaling is Required for Normal Bone Homeostasis *Mol Cell Biol* 30: 3071-85 2010 PMID 20404086.
132. Kitase Y, Barragan L, Qing H, Kondoh S, Jiang J, Johnson M, **Bonewald LF**, Mechanical Induction of PGE₂ in Osteocytes blocks Glucocorticoid Induced Apoptosis Through both the beta-Catenin and PKA Pathways. *J. Bone Min Res* 25:2657-68 2010 PMID 20578217
133. Xia Q, Kar R, Gluhak-Heinrich J, Yao W, Lane NE, **Bonewald LF**, Biswas SK, Lo WK, Jiang, J., Glucocorticoid Induced Autophagy in Osteocytes *J. Bone Min Res* 25:2479-88 2010 PMID 20564240
134. Fu Q, Rahaman MN, Bal BS, **Bonewald LF**, Kuroki K, Brown RF Silicate, borosilicate, and borate bioactive glass scaffolds with controllable degradation rate for bone tissue engineering applications, II. Invitro and in vivo biological evaluation. *J Biomed Mater Res A* 95:172-9 2010 PMID 20540099.

135. Lu Y, Yuan b, Qin C, Cao Z, Xie Y, Dallas SL, McKee MD, Drezner MK, **Boenwald LF**, Feng JQ The biological function of DMP1 in osteocyte maturation is mediated by its 57kDa C-terminal fragment. *J.Bone Miner Res* 26:331-40 2010 PMID 20734454.
136. Guo D., Keightley A., Guthrie J., Ven P. A., Harris, S. E., **Bonewald L. F.** Identification of osteocyte-selective proteins. *PROTEOMICS* 10:3688-98 2010 PMID 20845334.
137. Zhang R, Lu Y, Ye L, Yuan B, Yu S, qin C, Xie Y, Gao T, Drezner MK, **Bonewald LF**, Feng JQ Unique roles of phosphorus in endochondral bone formation and osteocyte maturation. *J Bone Min Res* 26:1047-56, 2011 PMID 21089142
138. Zhang J, Tu Q, **Bonewald LF**, He X, Stein G, Lian J, Chen J Effects of miR-335-5p in modulating osteogenic differentiation by specifically down-regulating Wnt antagonist Dkk1. *J Bone Min Res* 26:1953-63, 2011 PMID 21351149.
139. Xiao Z, Dallas M, Qiu N, Nicolella D, Cao L, Johnson M, **Bonewald L**, Quarles LD Conditional deletion of Pkd1 in osteocytes disrupts skeletal mechanosensing in mice. *FASEB J* 25:2418-32 2011 PMID 21454365.
140. Woo SM, Rosser J, Dusevich V, Kalajzic I, **Bonewald LF**. Cell line IDG-SW3 replicates osteoblast-to-late-osteocyte differentiation in vitro and accelerates bone formation in vivo. *J Bone Min Res* 26:2634-46 2011 PMID: 21735478.
141. Jia J, Yao W, Guan M, Dai W, Shahnazari M, Kar R, **Bonewald L**, Jiang JX, Lane NE. Glucocorticoid dose determines osteocyte cell fate. *FASEB J.* 25:3366-76 2011 PMID: 21705669
142. Nakashima t, Hayashi M, Fukunaga T, Kurata K, Oh-Hora M, Feng JQ, **Bonewald LF**, Kodama T, Wutz A, Wagner EF, Penninger JM, Takayanagi H. Evidence for osteocyte regulation of bone homeostasis through RANKL expression. *Nat Med* 17:1231-34 2011 PMID: 21909105.
143. Wijenayaka A, Kogawa M, Lim H, **Bonewald LF**, Findlay DM, Atkins GJ Sclerostin Stiulates Osteocyte Support of Osteoclast Activity by a RANKL-Dependent Pathway. *PLoS One.* 6:1-9. 2011 PMID: 21991382
144. Delgado-Calle J, Sañudo C, Bolado A, Fernández AF, Arozamena J, Pascual-Carra MA, Rodriguez-Rey JC, Fraga MF, **Bonewald L**, Riancho JA. DNA methylation contributes to the regulation of sclerostin expression in human osteocytes *J Bone Miner Res.* 27:926-37 2011 PMID: 22162201
145. Qing H, Ardeshirpour L, Pajevic PD, Dusevich V, Jahn K, Kato S, Wysolmerski, **Bonewald LF**, Demonstration of osteocyte perilacunar/canalicular remodeling in mice during lactation. *J Bone Miner Res* 27:1018-29 2012 PMID 22308018
146. Eick JD, Barragan-Adjemian C, Rosser J, Melander JR, Dusevich V, Weiler RA, Miller BD, Kilway KV, Dallas MR, Bi L, Nalvarte EL, **Bonewald LF**. Silorane resin supports proliferation, differentiation, and Mineralization of MLO-A5 bone cells in vitro and bone

formation in vivo. J. Biomed Mater Res B Appl Biomater 100B:850-861 2012 PMID 22278990.

147. Batra N, Burra S, Siller-Jackson AJ, Gu S, Xia X, Weber GF, Desimone D, **Bonewald LF**, Lafer EM, Sprague E, Schwartz MA, Jiang JX. Mechanical stress-activated integrin alpha 5 beta1 induces opening of connexin 43 hemichannels. Proc Natl Acad Sci 109:3359-64 2012 PMID 22331870.
148. Lieben L, Masuyama R, Torrekens S, Van Looveren R, Schrooten J, Baatsen P, Lafage-Proust MH, Dresselaers T, Feng JQ, **Bonewald LF**, Meyer MB, Pike JW, Bouillon R, Carmeliet G. Normocalcemia is maintained in mice under conditions of calcium malabsorption by vitamin D-induced inhibition of bone mineralization. J Clin Invest 122:1803-15 2012 PMID 22523068.
149. Bi L, Jung S, Day D, Neidig K, Dusevich V, Eick D, **Bonewald LF**. Evaluation of Bone Regeneration, Angiogenesis, and Hydroxyapatite Conversion in Critical-Sized Rat Calvarial Defects Implanted with Bioactive Glass Scaffolds. J. Biomed Mater Res B Appl Biomater 100:3267-75 2012 PMID: 22733586.
150. Stern AR, Stern MM, Van Dyke ME, Jaehn K, Prideaux M, **Bonewald LF**. Isolation and culture of primary osteocytes from the long bones of skeletally mature and aged mice. Biotechniques 52:361-73, 2012 PMID 22668415.
151. Jaehn K, Lara-Castillo N, Brotto L, Mo CL, Johnson ML, Brotto M, **Bonewald LF**. Skeletal muscle secreted factors prevent glucocorticoid-induced osteocyte apoptosis through activation of b-catenin. Eur Cell Mater 24:197-210, 2012 PMID 22972510.
152. Sheng MH, Zhou XD, **Bonewald LF**, Baylink DJ, Lau KH. Disruption of the insulin-like growth factor-1 gene in osteocytes impairs developmental bone growth in mice. Bone 133-144, 2012 PMID 23032105.
153. Ito N, Findlay DM, Anderson PH, **Bonewald LF**, Atkins GJ. J. Extracellular phosphate modulates the effect of 1 α ,25-dihydroxy vitamin D3 (1,25D) on osteocyte like cells. Steroid Biochem Mol Biol 136:183-6, 2012 PMID 23064198.
154. Mo D, Romero-Suarez S, **Bonewald L**, Johnson M, Brotto M. Prostaglandin E2 from clinical applications to its potential role in bone-muscle crosstalk and myogenic differentiation. Recent Pat Biotechnol 6:223-9, 2012 PMID 23092433.
155. Fulzele K, Krause DS, Panaroni C, Saini V, Barry KJ, Liu X, Lotinun S, Baron R, **Bonewald L**, Feng JQ, Cehn M, Weinstein LS, Wu JY, Kronenberg HM, Scadden DT, Divieti Pajevic P. Myelopoiesis is regulated by osteocytes through Gsa-dependent signaling. Blood 121:930-9, 2012 PMID 23160461.
156. Kim JY, Lee SK, Jo KJ, Song DY, Lim DM, Park KY, **Bonewald LF**, Kim BJ. Exendin-4

Increases Bone Mineral Density in Type 2 Diabetic OLETF Rats Potentially Through the Down-Regulation of SOST/Sclerostin in Osteocytes. *Life Sci.* 92:533-40, 2013 PMID 23357248.

157. Touchberry CD, Green TM, Tchikrizov V, Mannix JE, Mao TF, Carney BW, Girgis M, Vincent RJ, Wetmore LA, Dawn B, **Bonewald LF**, Stubbs JR, Wacker MJ. FGF23 is a novel regulator of intracellular calcium and cardiac contractility in addition to cardiac hypertrophy. *Am J Physiol Endocrinol Metab* 304:E863-73, 2013 PMID 23443925
158. Liu X, Rahaman MN, Liu Y, Bal SS, **Bonewald LF**, Enhanced bone regeneration in rat calvarial defects implanted with surface-modified and BMP-loaded bioactive glass (13-93) scaffolds. *Acta Biomater* 9:7506-17, 2013 PMID 23567939.
159. Bi L, Rahaman MN, Day DE, Brown Z, Samujh C, Liu X, Mohammadkhah A, Dusevich V, Eick JD, **Bonewald LF**. Effect of bioactive borate glass microstructure on bone regeneration, angiogenesis, and hydroxyapatite conversion in a rat calvarial defect model. *Acta Biomater* 9:8015-26, 2013 PMID 23643606.
160. **Bonewald LF**, Kiel D, Clemens T, Esser K, Orwoll E, O'Keefe R, Fielding R. Forum on Bone and Skeletal Muscle Interactions: Summary of the Proceedings of an ASBMR Workshop. *J Bone Min Res* 28:1857-65 2013, PMID 23671010.
161. Lau KH, Baylink DJ, Zhou XD, Rodriguez D, **Bonewald LF**, Li Z, Ruffoni D, Muller R, Kesavan C, Sheng MH Osteocyte-derived Insulin-like Growth Factor-1 is Essential for Determining Bone Mechanosensitivity. *Am J Physiol Endocrinol Metab* 305:E271-81, 2013 PMID 23715728.
162. Kogawa M, Wijenayaka AR, Ormsby R, Thomas GP, Anderson PH, **Bonewald LF**, Findlay DM, Atkins GJ Sclerostin regulates release of bone mineral by osteocytes by induction of carbonic anhydrase 2. *J Bone Miner Res* 28:2436-48 2013. PMID 23737439.
163. Jilka RL, O'Brien CA, Roberson Pk, **Bonewald LF**, Weinstein RS, Manolagas SC Dysapoptosis of osteoblasts and osteocytes increases cancellous bone formation but exaggerates bone porosity with age. *J. Bone Miner Res* 29:103-17 2013 PMID 23761243.
164. Klein, GL, Xie Y, Qin YX, Lin L, Hu M, Enkhbaatar P, **Bonewald, LF**, Preliminary evidence of early bone resorption in a sheep model of acute burn injury: an observational study. *J Bone Miner Metab* 32:136-41 2013 PMID 23784552.
165. Javaheri B, Stern A, Lara N, Dallas M, Zhao H, Liu Y, **Bonewald LF**, Johnson ML Deletion of a single b-catenin allele in osteocytes abolishes the bone anabolic response to loading. *J Bone Miner Res* 29:705-15, 2013 PMID 23929793.
166. Kondoh S, Inoue K, Igarashi K, Sugizaki H, Shirode-Fukuda Y, Inoue E, Yu T, Takeuchi JK, Kanno J, **Bonewald LF**, Imai Y Estrogen receptor alpha in osteocytes

regulates trabecular bone formation in female mice. Bone 60:68-77 2013 PMID 24333171.

167. Huang J, Hsu YH, Mo C, Abreu E, Kiel D, **Bonewald LF**, Brotto M, Karasik D. *METTL21C* is a Potential Pleiotropic Gene for Osteoporosis and Sarcopenia Acting through the Modulation of the NF κ B Signaling Pathway. JBMR 29:1531-40 2014 PMID 2467756.
168. St John HC, Bishop KA, Meyer MB, Benkusky NA, Leng N, Kendzierski C, **Bonewald LF**, Pike JW The Osteoblast to Osteocyte Transition: Epigenetic Changes and Response to the Vitamin D Hormone. Mol Endocrinol 28:1150-65. 2014 PMID 24877565.
169. Bi L, Zobell B, Liu X, Rahaman MN, **Bonewald LF**. Healing of critical-size segmental defects in rat femora using strong porous bioactive glass scaffolds. Mater Sci Eng C Mater Biol Appl (42):816-24. 2014 PMID 25063184.
170. Lindberg I, Pang, HW, Stains JP, Clark D, Yang AJ, **Bonewald L**, Li KZ FGF23 is endogenously phosphorylated in bone cells.J Bone Miner Res. 2014 Sep 6. PMID 25195776.
171. Srivastava T, Alon US, Cudmore PA Tarakji B, Kats A, Garola RE, Duncan RS, McCarthy ET, Sharma R, Johnson ML, **Bonewald LF**, El-Meanawy A, Savin VJ, Sharma M. Cyclooxygenase-2, Prostaglandin E2 and Prostanoid Receptor EP2 in Fluid Flow Shear Stress Mediated Injury in Solitary Kidney. Am J Physiol Renal Physiol. 307:F1323-33 2014 Sept 18. PMID: 25234310
172. Xu H, Gu S, Riquelme MA, Burra S, Callaway D, Cheng H, Guda T, Schmitz J, Fajardo RJ, Werner SL, Zhao H, Shang P, Johnson ML, **Bonewald LF**, Jiang JX J Bone Miner Res. Connexin 43 Channels are Essential for Normal Bone Structure and Osteocyte Viability. 2014 Oct 1. PMID: 25270829.
173. Kitase Y, Lee S, Gluhak-Heinrich J, Johnson ML, Harris SE, **Bonewald LF**. J Dent Res. CCL7 Is a Protective Factor Secreted by Mechanically Loaded Osteocytes. 93:1108-15 2014 Oct 1. PMID: 25274752
174. Stern AR, **Bonewald LF**. Isolation of osteocytes from mature and aged murine bone. Methods Mol Biol. 1226:3-10 2015.
175. Ito N, Wijenayaka AR, Prideaux M, Kogawa M, Ormsby RT, Evdokiou A, **Bonewald LF**, Findlay DM, Atkins GJ. Regulation of FGF23 expression in IDG-SW3 osteocytes and human bone by pro-inflammatory stimuli. Mol Cell Endocrinol 399C:208-218 2014.
176. John HC, Meyer MB, Benkusky NA, Carlson AH, Prideaux M, **Bonewald LF**, Wesley Pike J The Parathyroid Hormone-Regulated Transcriptome in Osteocytes: Parallel Actions with 1,25 Dihydroxyvitamin D3 to Oppose Gene Expression Changes During Differentiation and to Promote Mature Cell Function. Bone 72:81-91 2014 PMID25460572.

177. Mo C, Zhao R, Vallejo J, Igwe O, **Bonewald L**, Wetmore L, Brotto M. Prostaglandin E2 promotes proliferation of skeletal muscle myoblasts via EP4 receptor activation. *Cell Cycle*, 2015, Mar 18 PMID 25785867.
178. Prideaux M, Dallas SL, Zhao N, Johnsrud ED, Veno PA, Guo D, Mishina Y, Harris SE, **Bonewald LF**, Parathyroid Hormone Induces Bone Cell Motility and Loss of Mature Osteocyte Phenotype through L-Calcium Channel Dependent and Independent Mechanisms. *PLoS One*, 2015. PMID 25942444.
179. Zhao N, Nociti FH Jr, Duan P, Prideaux M, Zhao H, Foster FL, Somerman MJ, **Bonewald LF**, Isolation and Functional Analysis of an Immortalized Murine Cementocyte Cell Line, IDG-CM6. *J Bone Min Res*, 2015. PMID 26274352.
180. Xiong J Piemontese M, Onal M, Campbell J, Goellner JJ, Dusevich V, **Bonewald L**, Manolagas SC, O'Brien, CA Osteocyte, not osteoblasts or lining Cells, are the main source of the RANKL required for osteoclast formation in remodeling bone. *PLoS One*, 2015. PMID 26393791.
181. Gorski JP, Huffman NT, Vallejo J, Brotto L, Chittur SV, Breggia A, Stern A, Huang J, Mo C, Seidah NG, **Bonewald L**, Brotto M. Deletion of Mbtsp1 (PCSK8, S1P, SKI-1) in Osteocytes Stimulates Soleus Muscle Regeneration and Increased Size and Contractile Force with Age. *J Biol Chem*. 2015 Dec 30. PMID: 26719336.
182. Yamamoto H, Ramos-Molina B, Lick AN, Prideaux M, Albornoz V, **Bonewald L**, Lindberg I. Posttranslational processing of FGF23 in osteocytes during the osteoblast to osteocyte transition. *Bone*. 2015 Dec 30. PMID: 26746780.
183. Lin Y, Xiao W, Liu X, Bal BS, **Bonewald, LF**, Rahaman MN Long-term bone regeneration, mineralization and angiogenesis in rat calvarial defects implanted with strong porous bioactive glass (13-93) scaffolds. *J Non-Cry Sol* 432, p120-129, 2016.
184. Wacker MJ, Touchberry CD, Silswal N, Brotto L, Elmore CJ, **Bonewald LF**, Andresen J, Brotto M. Skeletal Muscle, but not Cardiovascular Function, Is Altered in a Mouse Model of Autosomal Recessive Hypophosphatemic Rickets *Front Physiol*. 2016 PMID: 27242547
185. Farr JN, Fraser DG, Wang H, Jaehn K, Ogrodnik MB, Weivoda MM, Drake MT, Tchknioia T, LeBrasseur NK, Kirkland JL, **Bonewald, LF**, Pignolo RJ, Monroe DG, Khosla S. Identification of Senescent Cells in the Bone Microenvironment. *J Bone Min Res* 2016 PMID: 27341653
186. Maurel DB, Duan P, Farr J, Cheng AL, Johnson ML, **Bonewald LF**, Beta-Catenin Haplo Insufficient Male Mice Do Not Lose Bone in Response to Hindlimb Unloading [PLoS One](#). 2016 PMID: 27410430
187. Montesi M, Jahn K, **Bonewald L**, Stea S, Bordini B, Beraudi A., Hypoxia mediates osteocyte ORP150 expression and cell death in vitro *Mol Med Rep* 2016. PMID: 27748851

188. Vemula H, Kitase Y, Ayon NJ, **Bonewald L**, Gutheil WG. Gaussian and linear deconvolution of LC-MS/MS chromatograms of the eight aminobutyric acid isomers. *Anal Biochem* 516:75-85, 2017. PMID: 27771391
189. C. Medina Gomez, J.P. Kemp, N. L. Dimou, E. Kreiner-Møller, A. Chesi, B. S. Zemel, K. Bønnelykke, C. G. Boer, T.S. Ahluwalia, H. Bisggaard, E. Evangelou, D. H. M. Heppe, **L. F. Bonewald**, J. P. Gorski, M. Ghanbari, S. Demissie, D. G. Duque, M. T. Maurano, D.P. Kiel, B.C.J. van der Eerden, C. Ackert-Bicknell, S. Reppe, K. M. Gautvik, T. Raastad, D. Karasik, J. van de Peppel, V. W. V. Jaddoe, A. G. Uitterlinden, J. H. Tobias, S.F.A Grant, P.G. Bagos, D.M. Evans, F. Rivadeneira "Bivariate genome-wide association analysis implicates pleiotropic effects at the 1 *SREBF1/TOM1L2* locus on bone mineral density and lean mass in children" *Nature Communications*: 2017. PMID: 2874360.
190. Yiwen Qin, Yuanzhen Peng, Wei Zhao, Jianping Pan, Christopher P Cardozo, Hanna Ksiezak-Reding, Yingjie Wu, Paola Divieti Pajevic, **Lynda F. Bonewald**, William A Bauman, Weiping Qin "Myostatin Inhibits Osteoblastic Differentiation by Suppressing Osteocyte-derived Exosomal microRNA-218: A Novel Mechanism in Muscle-Bone Communication". *Journal of Biological Chemistry*: 2017. PMID: 28465350
191. Katharina Jähn, Shilpa Kelkar, Hong Zhao, Yixia Xie, LeAnn M. Tiede-Lewis, Vladimir Dusevich, Sarah L. Dallas, **Lynda F. Bonewald**. "Osteocytes Acidify their Microenvironment in response to PTHrP in vitro and in Lactating Mice in vivo", *Journal of Bone and Mineral Research*: 2017. PMID: 28470757
192. Jian Huang, Sandra Romero-Suarez, Nuria Lara, Chenglin Mo, Simon Kaja, Leticia Brotto, Sarah L. Dallas, Mark L. Johnson, Katharina Jähn, **Lynda F. Bonewald**, Marco Brotto. "Crosstalk between MLO-Y4 osteocytes and C2C12 muscle cells is mediated by the Wnt/ β -catenin pathway". *JBMR plus* 2017 PMID 29104955.
193. Barreto R, Kitase Y, Matsumoto T, Pin F, Colston KC, Couch KE, O'Connell TM, Couch ME, **Bonewald LF**, Bonetto A. "ACVR2B/Fc counteracts chemotherapy-induced loss of muscle and bone mass". *Sci Rep* 2017 PMID 29089584.
194. Tiede-Lewis LM, Xie Y, Hulbert MA, Campos R, Dallas MR, Dusevich V, **Bonewald LF**, Dallas SL "Degeneration of the osteocyte network in the C57BL/6 mouse model of aging". *Aging* 2017 PMID 29074822.
195. Andrea Morrell, Genevieve Brown, Samuel Robinson, Rachel Sattler, Andrew Baik, Gehua Zhen, Xu Cao, **Lynda Bonewald**, Weiyang Jin, and Lance Kam "Mechanically-induced Ca^{2+} Oscillations in Osteocytes Release Extracellular Vesicles and Enhance Bone Formation". *Bone Research* 2018 Mar 19 PMID 29581909.
196. Kitase Y, Vallejo JA, Gutheil W, Vemula H, Jähn K, Yi J, Zhou J, Brotto M, **Bonewald LF**. β -aminoisobutyric Acid, l-BAIBA, Is a Muscle-Derived Osteocyte Survival Factor. *Cell Rep*. 2018 Feb 6;22(6):1531-1544. PMID: 29425508
197. Yajima A, Tsuchiya K, **Bonewald LF**, Inaba M, Tominaga Y, Tanizawa T, Ito A, Nitta K. Case report: Electron microscopic evaluation of bone from a patient treated with

cinacalcet hydrochloride, maxacalcitol, and alfacalcidol for hyperparathyroid bone disease with secondary hyperparathyroidism. *Osteoporos Int*. 2018 PMID 29492624.

198. Lu Y, Sayed SAK, Wang K, Tiede-Lewis LM, Grillo MA, Veno PA, Dusevich V, Phillips CL, **Bonewald LF**, Dallas SL. Live Imaging of Type I Collagen Assembly Dynamics in Osteoblasts Stably Expressing GFP and mCherry-tagged Collagen Constructs. *J Bone Miner Res*. 2018 PMID 29461659
199. Colditz J, Thiele S, Baschant U, Niehrs C, **Bonewald LF**, Hofbauer LC, Rauner M. Postnatal Skeletal deletion of Dickkopf-1 increases bone formation and bone volume in male and female mice despite increased sclerostin expression. *J Bone Min Res* 2018 PMID 29834465.
200. Morrell AE, Brown GN, Robinson ST, Sattler RL, Baik AD, Zhen G, Cao X, **Bonewald LF**, Jin W, Kam LC, Guo XE. Mechanically induced Ca²⁺ oscillations in osteocytes release extracellular vesicles and enhance bone formation. *Bone Res* 2018 PMID 29581909.
201. Pin F, Barreto R, Kitase Y, Mitra S, Eme CD, Novinger LF, Zimmers TA, Couch MR, **Bonewald LF**, Bonetto A Growth of Ovarian Cancer Xenografts causes loss of Muscle and Bone Mass: A New Model for the Study of Cancer Cachexia *J. Cachexia Sarcopenia Muscle* 2018 PMIC 30009406
202. Hyeonwoo Kim, Christiane D. Wrann, Mark Jedrychowski, Sara Vidoni, Yukiko Kitase, Kenichi Nagano, Chenhe Zhou, Joshua Chou, Virginia-Jeni A. Parkman, Scott J. Novick, Timothy S. Strutzenberg, Bruce D. Pascal, Phuong T. Le, Daniel J. Brooks, Alexander M. Roche, Kaitlyn K. Gerber, Laura Mattheis, Wenjing Chen, Hua Tu, Richard O. Hynes, Mary L. Bouxsein, Patrick R. Griffin, Roland Baron, Clifford J. Rosen, **Lynda F. Bonewald**, and Bruce M. Spiegelman. Irisin Mediates Effects on Bone and Fat via alphaV Integrin Receptors *Cell* 175: 1756-1768 2018 PMID 30550785
203. DB Maurel, T Matsumoto, J Vallejo, ML Johnson, SL Dallas, Y. Kitase, M Brotto, MJ. Wacker, MA Harris, SE Harris, **LF Bonewald**. Characterization of a novel murine Sost ER^{T2} Cre model targeting osteocytes *Bone Research* 2019 PMID 30820362
204. Wang K, Le L, Chun BM, Tiede-Lewis LM, Shiflett LA, Prideaux M, Campos RS, Veno PA, Xie Y, Dusevich V., **Bonewald LF**, Dallas SL. A Novel Osteogenic Cell Line that Differentiates into GFP-Tagged Osteocytes and forms Mineral with a Bone-like Lacunocanalicular Structure *J Bone Min Res* 2019 PMID 30882939
205. Pin F, Bonetto A, **Bonewald L**, Klein GL, Molecular Mechanisms Responsible for the Rescue Effects of Pamidronate on Muscle Atrophy in Pediatric Burn Patients *Front Endocrinol* 2019 PMID 31447786
206. Mo C, Wang Z, **Bonewald L**, Brotto M., Multi-Staged Regulation of Lipid Signaling Mediators during Myogenesis by COX-1/2 Pathways *Int J Mol Scie* 2019 PMIC 31487817

207. Miyazaki T, Zhao Z, Ichihara Y, Yoshino D, Imamura T, Sawada K, Hayano S, Kamioka H, Mori S, Hirata H, Araki K, Kawauchi K, Shigemoto K, Tanaka S, **Bonewald LF**, Honda H, Shinohara M, Nagao M, Ogata T, Harada I, Sawada Y. Mechanical regulation of bone homeostasis through p130Cas-mediated alleviation of NF-kB activity. *Sci Adv* 2019 PMID: 31579816.
208. Huang J, Wang K, Shiflett LA, Brotto L, **Bonewald LF**, Wacker MJ, Dallas SL, Brotto M. Fibroblast growth factor 9 (FGF9) inhibits myogenic differentiation of C2C12 and human muscle cells. *Cell Cycle* 2019 PMID: 3173519.
209. Pacicca DM, Brown T, Watkins D, Kover K, Yan Y, Prideaux M, **Bonewald L**, Elevated glucose acts directly on osteocytes to increase sclerostin expression in diabetes. *Sci Rep* 2019 PMID: 31757981.
210. Sego TJ, Prideaux M, Sterner J, McCarthy BP, Li P, **Bonewald LF**, Ekser B, Tovar A, Smith JL. Computational fluid Dynamic Analysis of Bioprinted Self-Supporting Perfused (SSuPer) Tissue Models. *Biotechnol Bioeng*. 2019 PMID 31788785.
211. Essex AL, Pin F, Huot JR, **Bonewald LF**, Plotkin LI, Bonetto A. Bishosphonate Treatment Ameliorates Chemotherapy-Induced Bone and Muscle Abnormalities in Young Mice. *Front Endocrinol (Lausanne)* 2019 PMID 31803146.
212. Mo C, Wang Z, **Bonewald L**, Brotto M. Multi-Staged Regulation of Lipid Signaling Mediators during Myogenesis by COX-1/2 Pathways. *Int J Mol Sci*, 2019 PMID 31579816.
213. Wang Z, Bian L, Mo C, Shen H, Zhao LF, Su KJ, Kukula M, Lee JT, Armstrong DW, Recker R, Lappe J, **Bonewald LF**, Deng HW, Brotto M Quantification of aminobutyric acids and their clinical applications as biomarkers for osteoporosis. *Commun Bio* 2020 PMID 31969651.
214. Wang H, Li T, Wang X, Yin X, Zhao N, Zou S, Duan P, **Bonewald LF**. The role of sphingosine-1-phosphate signaling pathway in cementocyte mechanotransduction. *Biochem Biophys Res Commun* 2020 PMID 31941604.
215. Prideaux M, Kitase Y, Kimble M, O'Connell TM, **Bonewald LF**, Taurine, an osteocyte metabolite, protects against oxidative stress-induced cell death and decreases inhibitors of the Wnt/b-catenin signaling pathway *Bone* 2020 PMIC 32330695.
216. Ito N, Prideaux M, Wijenayaka AB, Yang D, Ormsby RT, **Bonewald LF**, Atkins GJ Sclerostin directly stimulates osteocyte synthesis of Fibroblast Growth Factor 23 *Cal Tiss Int*. 2021 PMID33616712.
217. Pin F, Prideaux M, Huot JR, Essex AL, Plotkin LI, Bonetto A, **Bonewald LF**, Non-bone metastatic cancers promote osteocyte-induced bone destruction *Cancer Lett* 2021 PMIC 32233150. DOI:10.1016/j.canlet.2021.06.030

218. Nakamura MT, Zhang H, Guo D, Ueharu H, Pan H, Scott G, Harris M, Ray M, Feng JQ, Harris SE, **Bonewald LF**, Mishina Y Podoplanin is dispensable for mineralized tissue formation and maintenance in the Swiss outbred mouse background. *Genesis: The Journal of Genetics and Development*. 2021, <https://doi.org/10.1002/dvg.23450>
219. Pin F, Jones AJ, Huot, JR, Narasimhan A, Zimmers TA, **Bonewald, LF**, Bonetto, A. RANKL Blockade reduced cachexia and bone loss induced by non-metastatic ovarian cancer in mice. *JBMR* 2021 PMID 34904285.
220. Williams JN, Irwin M, Li Y, Kambrath AV, Mattingly BT, Patel S, Kittaka M, Collins RN, Clough NA, Doud EH, Mosley AL, Bellido T, Bruzzaniti A, Plotkin LI, Trinidad JC, Thompson WR, **Bonewald LF**, Sankar U. Osteocyte-Derived CaMKK2 Regulates Osteoclasts and Bone Mass in a Sex-Dependent Manner through Secreted Calpastatin. *Int J Mol Sci*. 2023 Mar 1;24(5):4718. doi: 10.3390/ijms24054718. PMID: 36902150; PMCID: PMC10003151.
221. Agoro R, Nookaew I, Noonan ML, Marambio YG, Liu S, Chang W, Gao H, Hibbard LM, Metzger CE, Horan D, Thompson WR, Xuei X, Liu Y, Zhang C, Robling AG, **Bonewald LF**, Wan J, White KE. Single cell cortical bone transcriptomics define novel osteolineage gene sets altered in chronic kidney disease. *Front Endocrinol (Lausanne)*. 2023 Jan 26;14:1063083. doi: 10.3389/fendo.2023.1063083. PMID: 36777346; PMCID: PMC9910177.
222. Wang Z, Mo C, Awad K, **Bonewald L**, Brotto M. Mass Spectrometry Approaches for Detection and Determination of Prostaglandins from Biological Samples. *Methods Mol Biol*. 2023;2625:299-311. doi: 10.1007/978-1-0716-2966-6_25. PMID: 36653652.
223. Wang Z, Mo C, **Bonewald L**, Brotto M. Quantification of Endocannabinoids from Biological Samples Using Liquid Chromatography-Tandem Mass Spectrometry. *Methods Mol Biol*. 2023;2625:115-127. doi: 10.1007/978-1-0716-2966-6_11. PMID: 36653638.
224. Prideaux M, Smargiassi A, Peng G, Brotto M, Robling AG, **Bonewald LF**. L-BAIBA Synergizes with Sub-Optimal Mechanical Loading to Promote New Bone Formation. *JBMR Plus*. 2023 Apr 24;7(6):e10746. doi: 10.1002/jbm4.10746. eCollection 2023 Jun. PMID: 37283651.
225. Bidwell JP, **Bonewald L**, Robling AG. The Skeleton as a Secretory Organ. *Calcif Tissue Int*. 2023 Jul 1. doi: 10.1007/s00223-023-01106-y. Online ahead of print. PMID: 37393315.
226. Lyssikatos C, Wang Z, Liu Z, Warden SJ, Brotto M, **Bonewald L**. L- β -aminoisobutyric acid, L-BAIBA, a marker of bone mineral density and body mass index, and D-BAIBA of physical performance and age. *Sci Rep*. 2023 Oct 11;13(1):17212. doi: 10.1038/s41598-023-44249-6. PMID: 37821627.
227. Lyssikatos C, Wang Z, Liu Z, Warden SJ, **Bonewald L**, Brotto M. γ -Aminobutyric acids (GABA) and serum GABA/AABA (G/A) ratio as potential biomarkers of physical

performance and aging. *Sci Rep.* 2023 Oct 10;13(1):17083. doi: 10.1038/s41598-023-41628-x. PMID: 37816783.

228. Shimonty A, Pin F, Prideaux M, Peng G, Huot JR, Kim H, Rosen CJ, Spiegelman BM, **Bonewald LF**. Deletion of FNDC5/Irisin modifies murine osteocyte function in a sex-specific manner. *eLife*. 2024 Apr.3 PMID: 38661340 .
229. Wang H, Li T, Jiang Y, Chen S, Zou S, **Bonewald LF**, Duan P. Force-Loaded Cementocytes Regulate Osteoclastogenesis via S1P/S1PR1/Rac1 Axis. *J Dent Res*. 2023 Nov;102(12):1376-1386. doi: 10.1177/00220345231195765. Epub 2023 Sep 21. PMID: 37735908.
230. Estell E, Ichikawa T, Giffault P, **Bonewald L**, Spiegelman B, Rosen C. Irisin Enhances Mitochondrial Function in Osteoclast Progenitors during Differentiation. *Biomedicines*. 2023 Dec 14;11(12):3311. doi: 10.3390/biomedicines11123311. PMID: 38137532.
231. Awad K, Moore L, Huang J, Gomez L, Brotto L, Varanasi V, Cardozo C, Weisleder N, Pan Z, Zhou J, **Bonewald L**, Brotto M. Advanced Methodology for Rapid Isolation of Single Myofibers from Flexor Digitorum Brevis Muscle. *Tissue Eng Part C Methods*. 2023 Aug;29(8):349-360. doi: 10.1089/ten.TEC.2023.0012. Epub 2023 May 24. PMID: 37097213.
232. Lara-Castillo N, Masunaga J, Brotto L, Vallejo JA, Javid K, Wacker MJ, Brotto M, **Bonewald LF**, Johnson ML. Muscle secreted factors enhance activation of the PI3K/Akt and β -catenin pathways in murine osteocytes. *Bone*. 2023 Sep;174:116833. doi: 10.1016/j.bone.2023.116833. Epub 2023 Jun 27. PMID: 37385426.
233. Sakamoto E, Kitase Y, Fitt AJ, Zhu Z, Awad K, Brotto M, White KE, Welc SS, Bergwitz C, **Bonewald LF** Both enantiomers of β -aminoisobutyric acid, BAIBA, regulate Fgf23 through the MRGPRD receptor by activating distinct signaling pathways in osteocytes *Cell Reports* 2024 Jul 23:43:PMID 38935499.
234. Shimonty A, Pin F, Prideaux M, Peng G, Huot J. Kim H, Rosen CJ, Spiegelman BM, **Bonewald LF** Deletion of FNDC5/irisin modifies murine osteocyte function in a sex-specific manner. *eLife* 2024 Apr 25:12 PMID 38661340.
235. Chen NX, O'Neill KD, Wilson HE, Srinivasan S, **Bonewald L**, Moe SM. The uremic toxin indoxyl sulfate decreases osteocyte RANKL/OPG and increases Wnt inhibitor RNA expression that is reversed by PTH. *JBMR Plus* 2024 Oct 29:9 PMID 39664935.
236. Awad K., Kumar A, Aziz MN, Brotto L, Wang Z, **Bonewald L**, Brotto M Separation and Quantification of Isomeric Forms of Aminobutyric Acids. *Methods Mol Biol*. 2025 PMID 40498193.

237. Prideaux M, Palmier M, Kitase Y, **Bonewald L**, O'Connell T. Osteocyte Differentiation Requires Glycolysis, but Mature Osteocytes Display Metabolic Flexibility. *bioRxiv* 2025 PMID 40462944.

3. Reviews

1. Bonewald LF, Mundy GR. Role of transforming growth factor beta in bone remodeling. A Review *Connective Tissue Research* 23:201-208, 1989.
2. Bonewald LF, Mundy GR. Role of transforming growth factor beta in bone remodeling. *Journal of Clinical Orthopaedics and Related Research*. 250:261-276, 1990.
3. Bonewald LF. Can transforming growth factor beta be useful as a protective agent for pluripotent hematopoietic progenitor cells? *Experimental Hematology* 20:1249-1251, 1992.
4. Bonewald LF, Harris SE. The role of the transforming growth factor β family of proteins on bone cell differentiation and function. International Symposium on recent advances in life sciences. 14th International Symposium of Kyungpook National University, printed by Junakack-dang, Taegue Korea, pp 59-27, 1993.
5. Bonewald LF, Dallas S. The role of active and latent TGF beta in bone formation. *J Cell Biochem* 55:350-357, 1994.
6. Mundy GR, Boyce B, Hughes D, Wright K, Bonewald L, Dallas S, Harris, S, Ghosh-Choudhury N, Chen D, Dunstan C, et al The Effects of cytokines and growth factors on osteoblastic cells. *Bone* 17:17S-71S, 1995.
7. Bonewald LF. Regulation and regulatory activities of TGF beta. *Critical Reviews in Eukaryotic Gene Expression* (G. Stein, J. Stein, J Lian, eds) 9:33-44, 1999.
8. Bonewald LF. Osteocytes: A Proposed Multifunctional Bone Cell. *J. Musculoskel Neuron Interact* 2:239-241, 2002.
9. Bonewald LF Osteocyte Biology. *Current Opinions in Orthopaedics* 14:311-316, 2003.
10. Bonewald LF Osteocyte Biology: Its Implications for Osteoporosis. *J. Musculoskel Neuronal Interact* 4:101-4, 2004.
11. Bonewald LF Summary-Osteocytes and Mechanotransduction. *J. Musculoskel Neuronal Interact* 5:333-4, 2006, 2004.
12. Bonewald LF Generation and Function of Osteocyte Dendritic Processes. *J. Musculoskel Neuronal Interact* 5:321-4, 2005.
13. Rios HF, Ye L, Dusevich V, Eick D, Bonewald LF, Feng JQ DMP1 is essential for osteocyte formation and function. *J. Musculoskel Neuronal Interact* 5:325-7, 2005.

14. Bonewald LF Osteocytes as multifunctional cells. *J. Musculoskel Neuronal Interact* 6:331-3, 2006.
15. Bonewald LF Mechanosensation and Transduction in Osteocytes. *BoneKey Osteovision* 3:7-15, 2006.
16. Bonewald LF, Osteocytes as Dynamic, Multifunctional Cells. *Ann N Y Acad Sci.* 1116: 281-90, 2007.
17. Lu Y, Liu S, Xie Y, Yu S, Quarles LD, Bonewald, LF, Feng JQ, Use of the transgenic approach to determine the role of DMP1 in phosphate regulation. *JMNI* 7:309, 2007.
18. Harris SE, Gluhak-Heinrich J., Harris MA, Yang W, Bonewald LF, Riha D, Rowe PS, Robling AG, Turner CH, Feng JQ, McKee MC, Nicolella D. DMP1 and MEPE expression are elevated in osteocytes after mechanical loading in vivo: Theoretical role in controlling mineral quality in the perilacunar matrix. *JMNI* 7:313-5, 2007.
19. Bonewald, LF, Johnson, ML, Osteocytes, Mechanosensing and Wnt Signaling. *Bone* 42:606-15, 2008.
20. Lamas M, Ma D, Barragan-Adjemian D, Xie Y, Lu Y, Bonewald LF, Feng JQ, Pre-odontoblasts, Odontoblasts or "Odontocytes?" *J. Dent. Res.* 87:198-9, 2008.
21. Nicolella DP, Feng JQ, Moravits DE, Bonivitch AR, Wang Y, Dusecich V, Yao W, Lane N, Bonewald LF. Effects of nanomechanical bone tissue properties on bone tissue strain: Implications for osteocyte mechanotransduction. *JMNI*. 2008 Oct-Dec;8(4):330-1. PMID: 19147962.
22. Henriksen K, Neutzsky-Wulff AV, Bonewald, LF, Karsdal MA, Local communication on and within bone controls bone remodeling. *Bone* 44:1026-33, 2009 PMID 19345750.
23. Guo D, Bonewald LF Advancing our understanding of osteocyte cell biology, *Therapeutic Advances in Musculoskeletal Disease* 1: 87-96, 2009.
24. Dallas SL, Bonewald LF, Dynamics of the Transition from Osteoblast to Osteocyte, *Ann NY Acad Sci.* 1192:437-43, 2010. PMID 20392270.
25. Qing H, Bonewald LF, Osteocyte Remodeling of the Perilacunar and Pericanalicular Matrix. *International Journal of Oral Science* 1: 59-65, 2009.
26. Bonewald LF, The Amazing Osteocyte, *J Bone Min Res* 26:229-38, 2011 PMID 21254230.
27. Rahaman MN, Day DE, Bal SB, Fu Q, Jung SB, Bonewald LF, Tomasia AP Bioactive Glass in Tissue Engineering. *Acta Biomater.* 2011 PMID 21321084
28. Prideaux M, Bonewald LF, "The osteocyte: doing the hard work of the backstage" in

"Bone: A Story Of Breakthroughs, A Promising Future". Medicographia, (N° 111) 2012.

29. Bonewald LF, Wacker MJ. FGF23 Production by Osteocytes. *Pediatr Nephrol* 2012 PMID 22983423
30. Dallas SL, Prideaux M, Bonewald LF. The Osteocyte: An Endocrine Cell and More. *Endocr Rev* 2013 PMID 23612223.
31. Bonewald LF, Kiel DP, Clemens TL, Esser K, Orwoll ES, O'Keefe RJ, Fielding RA. Forum on bone and skeletal muscle interactions: summary of the proceedings of an ASBMR workshop. *JBMR* 2013 PMID 23671010.
32. Lewiecki EM, Bilezikian JP, Bonewald L, Compston JE, Heaney RP, Kiel DP, Miller PD, Schousboe JT. Osteoporosis Update: Proceedings of the 2013 Sante Fe Bone Symposium. *J Clin Densitom*, 330-343, 2013.
33. Detamore MS, Dennis SC, Berkland C., Bonewald L. Endochondral Ossification for Enhancing Bone Regeneration: Converging Native ECM Biomaterials and Developmental Engineering in vivo. *Tissue Eng Part B Rev*. 2014 Oct 22.
34. Bonewald LF. "Bone Biology Research and Potential Applications in Oral Health Care". *AccessMagazine, ADHA*. May-June, 2015.
35. Zhou J, Yi J, Bonewald, L. Muscle-Bone Crosstalk in Amyotrophic Lateral Sclerosis. *Curr Osteoporosis Rep* 2015 Jul 30.
36. Brotto M, Bonewald, L., Bone and Muscle: Interactions beyond Mechanical. *Bone* 2015, PMID 26453500.
37. Zhao N, Foster B, Bonewald L. The Cementocyte-An Osteocyte Relative? *J DentRes*. 2016. PMID 27029548.
38. Duan P, Bonewald L. The role of the wnt/ β -catenin signaling pathway in formation and maintenance of bone and teeth. *Int J Biochem Cell Biol*. 2016. PMID 27219593.
39. Bonewald LF. The Role of the Osteocyte in Bone and Non-Bone Disease. *Endocrinol Metab Clin North Am*. 2017 Mar; 46(1):1-18.PMID:28131126
40. Ward LM, Kinnett K, Bonewald L, on behalf of Parent Project Muscular Dystrophy Bone Health Workshop Collaborators (Adachi J, Bachrach L, Bellido T, Brotto M, Donovan J, Hoffman E, McMillan H, Novotny S, Rafael-Fortney J, Rauch F, Warden SJ). Morbidity due to osteoporosis in Duchenne muscular dystrophy: the path forward. *Neuromuscular Disorders* 2017 PMID 28756052
41. Tsourdi E, Jahn K, Rauner M, Busse B, Bonewald LF "Physiological and Pathological Osteocytic Osteolysis" *J Musculoskelet Neuronal Interact* 2018: 18:292-303.

42. Bonewald L, "Use it or lose it to age: A review of bone and muscle communication" *Bone* 2018 PMID 30408611.
43. Robling AG, Bonewald LF, "The Osteocyte:New Insights" *Annu Rev Physiol* 10:82 485-506, 2020 PMID 32040934.
44. Kiel DP, Kemp JP, Rivadeneira F, Westendorf JJ, Karasik D, Duncan EL, Imai Y, Muller R, Flannick J, Bonewald L, Burt N. The Musculoskeletal Knowledge Portal: Making Omics Data Useful to the Broader Scientific Community *JBMR* 2020 PMID 32777102.
48. Pin R, Bonewald LF, Bonetto A Role of myokines and osteokines in cancer cachexia *Exp Biol Med* 2021 PMID: 33899538
49. Pin F, Prideaux M, Bonewald, LF, Bonetto A Osteocytes and Cancer *Curr Osteoporosis Rep.* 2021 PMIC 34773212.
50. Westendorf JJ, Bonewald, LF, Kiel DP, Burt NP The Musculoskeletal Knowledge Portal: improving access to multi-omics data *Nat Rev Rheumatol* 2022 PMID 34686856.
51. Francis H. Glorieux, Lynda F. Bonewald, Nicholas C. Harvey & Marjolein C. H. van der Meulen, Potential influences on optimizing long-term musculoskeletal health in children and adolescents with X-linked hypophosphatemia (XLH), *Orphanet Journal of Rare Diseases* 1/31/2022, doi.org/10.1186/s13023-021-02156-x.
52. Shimonty A, **Bonewald LF**, Pin F. Role of the Osteocyte in Musculoskeletal Disease. *Curr Osteoporosis Rep.* 2023 Apr 21. doi: 10.1007/s11914-023-00788-5. Online ahead of print. PMID: 37084017 Review.
53. Shimonty A, **Bonewald LF**, Huot JR. Metabolic Health and Disease: A Role of Osteokines? *Calcif Tissue Int.* 2023 May 17. doi: 10.1007/s00223-023-01093-0. Online ahead of print. PMID: 37193929 Review.
54. Welc SS, Brotto M, White KE, **Bonewald LF**. Aging: A struggle for beneficial to overcome negative factors made by muscle and bone *Mech Ageing Dev* 2025 Apr:224: PMID: 39952614

Commentaries

1. Bonewald, LF, Osteocyte messages from a bony tomb. *CellMetab.* 6:410-1, 2007.
2. Bonewald L, The Holy Grail of High Bone Mass *Nat Med* 17:667-8, 2011 PMID 21647140.
3. Rios HF, Bonewald LF, Conway SJ. Lessons from the Matricellular Factor Periostin. *J. Dent. Res* 2014 PMID 25012809.
4. Bonewald, LF Does defective bone lead to defective muscle? *J Bone Miner Res.* 2015 Feb 28.

5. Westendorf, J, Bonewald, LF, Kiel DP, Burtt, NP, The Musculoskeletal Knowledge Portal: improving access to multi-omics data. Nat Rheu Rev 2021. PMID 3468656.

4. Abstracts (*oral presentations)

1. Bonewald LF, Singh RNP, Frigeri LG, Lewis UJ. A naturally occurring form of human growth hormone with a blocked amino terminus. The Endocrine Society, 1979.
2. Bonewald LF, Ades EW. Antiserum against the human Theta homologue. Specificity for human T lymphoblastoid lines. Soc Exp Biol Med, Charleston, SC, 1980.
3. Bonewald LF, Wang AC, Terry E, Zwerner R, Balch CM, Ades EW. Molecular comparison of mouse Thy 1 and its human homologue. Fed Proc 41, 1982.
4. Bonewald LF, Wang AC, Wang IY, Balch CM, Ades EW. Antigenic determinant(s) shared by the human Thy 1 antigen and human IgG. Fed Proc 42, 1983.
5. Bonewald LF, Wang AC, Ades EW. Biochemical characterization of human Thy 1. Natl Student Res Forum, Galveston, TX 1983.
6. Bonewald LF, Pharr PN, Leary AG, Ogawa M. Purification of human hemopoietic stem cell growth factor. Internat'l Soc Exp Hematol, 1986.
7. Bonewald LF, Mundy GR, Pfeilschifter J. Dynamics for rebinding of transforming growth factor beta to its binding protein. First Symposium of the Protein Society, August, 1987.
8. Valentin-Opran A, Bonewald LF, Delmas PD, Graves D, Meunier PJ, Saez S, Mundy GR. Transforming growth factor (TGFbeta), platelet - derived growth factor (PDGF) and insulin-like growth factor 1 (IGF-1) are involved in metastatic breast cancer bone formation. XX European Symposium in Calcified Tissue, 1987.
9. Bonewald LF, Gutierrez GE, Mundy GR. Different responses of osteoblastic cell lines to osteotropic factors. J Bone Min Res 2 (Suppl 1):#23, 1987.
10. Killian P, Kaffka K, Mundy GR, Bonewald LF. Presence and correlation of interleukin-1 receptors on an osteoblastic cell line SAOS with alkaline phosphatase activity. J Bone Min Res 2 (Suppl 1):#236, 1987.
11. Schwartz Z, Bonewald LF, Swain L, Boyan B. Osteoblast like cells (ROS 17/2.8, MG-63 and MC 3T3) produce extracellular matrix vesicles that are regulated by 1,25 (OH)₂D₃. Third Internat'l Conference on the Chemistry and Biology of Mineralized Tissues, Glimcher, MA, 1988.
12. Schwartz Z, Bonewald LF, Swain L, Boyan B. Localization of 1,25(OH)₂D₃ responsive alkaline phosphatase to plasma membrane and matrix vesicles in cultured ROS 17/2.8 osteosarcoma cells. J Bone Min Res 3 (Suppl 1):#58, 1988.

13. Bonewald LF, Oreffo ROC, Seyedin S, Mundy GR. Isolated osteoclasts activate latent TGFbeta . J of Bone Min Res 3 (Suppl 1):#120, 1988.
14. Oreffo ROC, Bonewald LF, Garrett IR, Seyedin S, Mundy GR. Transforming growth factors beta I and II inhibit osteoclast activity. J Bone Min Res 3 (Suppl 1):#439, 1988.
15. Kukita A, Bonewald LF, Rosen D, Seyedin S, Mundy GR, Roodman GD. Osteoinductive factor (OIF) inhibits formation of human osteoclast-like cells. The Am Soc Cell Biol 107, 1989.
16. Rosen DM, Stempien SA, Bonewald LF, Mundy GR, Bentz H, Seyedin SM. The Am Soc Cell Biol 107:162, 1989.
17. Bonewald LF, Schwartz Z, Swain L, Poser J, Boyan B. More TGFbeta responsive alkaline phosphatase activity is localized to matrix vesicles than plasma membranes in ROS 17/2.8 osteosarcoma cells. J Bone Min Res 4 (Suppl 1):#145, 1989.
18. Oreffo ROC, Bonewald LF, Seyedin SM, Rosen D, Mundy GR. Inhibition of osteoclastic bone resorption by bone growth factors. J Bone Min Res 4 (Suppl 1):#147, 1989.
19. Bonewald LF, Wakefield LM, Oreffo ROC, Escobedo A, Mundy GR. Bone contains a novel latent TGFbeta complex. J Bone Min Res 4 (Suppl 1):#148, 1989.
20. Sabatini M, Bonewald LF, Chavez J, Mundy GR. Production of GM-CSF by a human tumor associated with leukocytosis and hypercalcemia induces cytokine production by host cells. J Bone Min Res 4 (Suppl 1):#149, 1989.
21. Keeting PE, Bonewald LF, Colvard DS, Spelsberg TC, Mundy GR. Estrogen-mediated release of transforming growth factor beta by normal human osteoblast-like cells. J Bone Min Res 4 (Suppl 1):#655, 1989.
22. Wo G, Bonewald LF, Oreffo ROC, Chirgwin JM, Capony F, Rochefort H, Mundy GR. Evidence that lysosomal procathepsin D secreted by human breast cancer cells activates osteoclasts. J Bone Min Res 4 (Suppl 1):#820, 1989.
23. Yoneda T, Alsina MM, Chavez JB, Bonewald LF, Mundy GR. Hypercalcemia in human tumor is due to tumor necrosis factor beta production by host immune cells. J Bone Min Res 4 (Suppl 1):#826, 1989.
24. Yoneda T, Bonewald LF, Mundy GR. Establishment of a human squamous cancer cell line which constitutively secretes G, GM, M-CSF and IL-6 from a tumor associated with neutrophilia, cachexia and hypercalcemia. Am Soc of Hematology 1989.
25. Allendorfer R, Magee DM, Smith JG, Bonewald LF, Graybill JR. Induction of tumor necrosis factor beta in murine-Candida Albican infection. Am Soc Neurobiol 1990.

26. *Oreffo ROC, Mundy GR, Twardzik D, Bonewald LF. Selective release of active human TGFbeta I from its recombinant inactive precursor by isolated osteoclasts. Third Internat'l Workshop on Cells and Cytokines in Bone and Cartilage, Davos, Switzerland 1990.
27. Bonewald LF, Kester MB, Khare A, Boyan BB. TGFbeta and 1,25(OH)₂D₃ synergistically induce alkaline phosphatase activity in a human osteosarcoma without a concomitant increase in message. Third Internat'l Workshop on Cell and Cytokines in Bone and Cartilage, Davos Switzerland, 1990.
28. Windeler S, Carnes D, Moyer M, Bonewald LF, Boyan B. The use of ultra thin fibers as cell culture substrates. 41st Annual Meeting Tissue Culture Assn., Houston, TX 1990.
29. Boyan BD, Bonewald LF, Swain L, Ramirez V, Schwartz Z. Stimulation of matrix vesicle enzyme activity suggests a possible role for TGF beta in bone healing. 2nd Meeting. International Society for Fracture Repair 1990.
30. Bonewald LF, Escobedo A, Oreffo ROC, Twardzik D, Mundy GR. Evidence that latent TGFbeta produced by bone is the TGF beta precursor. J Bone Min Res 5 (Suppl 1):#324, 1990.
31. Kester MB, Mundy GR, Seyedin S, Rosen D, Bonewald LF. Effects of TGF beta and osteoinductive factor on osteoblastic cell lines. J Bone Min Res 5 (Suppl 1):#323, 1990.
32. Lee CH, Bonewald LF, Wo G, Chirgwin J, Rochefort H, Capony F, Mundy GR. Activation of isolated osteoclasts by lysosomal procathepsin D and related molecules. J Bone Min Res 5 (Suppl 1):#522, 1990.
33. Yates AJ, Marcelli C, Bonewald LF, Aufdemorte T, Walker R, Langton BC, Mundy GR. Human Transforming growth factor beta (TGF beta) causes marked hypercalcemia in mice and is synergistic with low-dose parathyroid hormone-related protein. J Bone Min Res 5 (Suppl 1):#741, 1990.
34. Windeler S, Bonewald LF, Oreffo ROC, Carnes D, Kester MB, Mundy GR. The effects of mineralized surfaces on osteoclasts and osteoblasts. J Bone Min Res 5 (Suppl 1):#332, 1990.
35. Garrett IR, Chizzonite R, Bonewald LF, Mundy GR. Antibodies to the 80kD IL-1 receptor present on osteoblasts block bone resorbing activity of tumor necrosis factor beta as well as interleukin-1. J Bone Min Res 5 (Suppl 1):#300, 1990.
36. Swain L, Schwartz Z, Bonewald L, Boyan B. Regulation of phospholipase A₂ activity by 1,25(OH)₃ in osteoblast like cells: possible mechanism of action. J Bone Min Res 5 (Suppl 1):#252, 1990.
37. Hestilow K, Kester M, Bonewald LF, Mundy GR, Windeler S. Performance of primate bone cells cultured on sputtered films. IADR/AADR General Session, Acapulco, Mexico April 1991.

38. Magee DM, Williams DM, Smith JG, Bleicher CA, Bonewald LF, Schachter J. In vivo production of interleukin 1 and interleukin 6 during Clamylidia trachomatis pneumonia. ASM Annual Meeting Dallas, TX May 1991.
39. Guise T, Chirgwin J, Favarato G, Kester MB, Bonewald LF, Mundy GR. Transfection of human parathyroid hormone related peptide gene into Chinese hamster ovarian (CHO) cells on animal model for humoral hypercalcemia of malignancies. Endocrine Society 1991.
40. Abboud HE, Walker KA, Snyder SP, Bonewald LF. Regulation of transforming growth factor beta by platelet-derived growth factor in human mesangial cells. Clin Res 39(2):358A, 1991.
41. *Bonewald LF, Schwartz Z, Swain LD, Boyan BD. Stimulation of matrix vesicle enzyme activity in osteoblast-like cell by 1,25(OH)₂D₃ and transforming growth factor (TGF beta). Fifth International Conference on cell-mediated calcification and matrix vesicles. November 16-20, 1991.
42. Bonewald LF, Dallas S, Mundy GR. Differential expression of messenger RNA for TGF beta-1 and TGF beta binding protein in human osteoblastic cells. MCDB/ISU Symposium on Transforming Growth Factor beta - and related Proteins in Development. September 20-23, 1991.
43. Abboud HE, Woodruff KA, Snyder SP, Bonewald LF. Polypeptide growth factors regulate the production of latent transforming growth factor beta in human mesangial cells. American Society of Nephrology, 24th Annual Meeting, November 17-20, 1991.
44. *Mundy GR, Yoneda T, Kato I, Bonewald LF, Bonewald W. Mechanisms of osteoclast formation and activation. International Conference on Osteoporosis, November 5-7, 1991, Kobe Japan.
45. Bonewald LF, Mundy GR, Kester MB, Harris MA. Transforming growth factor beta (TGF beta) and bone morphogenetic protein (BMP) 4 expression in human MG-63 bone cells is enhanced by TGF beta. Thirteenth Annual Meeting of the American Society for Bone and Mineral Research, August 24-28, 1991, San Diego, CA.
46. Oreffo ROC, Marshall J, Kirchen M, Gallwitz W, Mundy GR. Characteristics of a stromal cell line derived from a giant cell tumor which stimulates osteoclastic bone resorption. Thirteenth Annual Meeting of the American Society for Bone and Mineral Research, August 24-28, 1991.
47. Bonewald LF, Schwartz Z, Kester MB, Swain L, Johnson T, Leach R, Boyan BD. Transforming growth factor (TGF beta) and 1,25(OH)₂D₃ synergistically regulate matrix vesicle alkaline phosphatase yet retains human osteosarcoma (MG-63) in a non-fully differentiated state. Thirteenth Annual Meeting of the American Society for Bone and Mineral Research, August 24-28, 1991.

48. Yoneda T, Kato I, Bonewald LF, Chisoku H, Burgess WH, Mundy GR. A novel osteoclastpoietic peptide: Purification and characterization. Thirteenth Annual Meeting of the American Society for Bone and Mineral Research, August 24-28, 1991.
49. *Gallwitz WE, Mundy GR, Oreffo ROC, Gaskell SJ, Bonewald LF. Purification of osteoclastropic factors produced by stromal cells: Identification of 5-lipoxygenase metabolites. Thirteenth Annual Meeting of the American Society for Bone and Mineral Research, August 24-28, 1991.
50. Harris SE, Bonewald LF, Harris MA, Sabatini M, Mundy GR. Retinoic acid (RA) regulates expression of early growth response genes, BMP 4, and BMP 2 mRNA in human osteoblastic cells. Thirteenth Annual Meeting of the American Society for Bone and Mineral Research, August 24-28, 1991.
51. Swain L, Schwartz Z, Brooks B, Kelly D, Bonewald L, Dennis R, Boyan B. Autocrine effect of PGE₂ on chondrocytes is dependent on cell maturation and is regulated by vitamin D metabolites. Thirteenth Annual Meeting of the American Society for Bone and Mineral Research, August 24-28, 1991.
52. Harris SE, Sabatini M, Harris MA, Bonewald LF, Mundy GR. Regulation of expression of bone morphogenetic protein 2 (BMP2) during bone formation and mineralization in vitro: Gene structure and function. The Endocrine Society Meeting, June 24-27, 1992
53. *Dallas S, Park-Snyder S, Twardzik D, Mundy GR, Bonewald LF. Differential auto-regulation of TGF beta 1 and TGF beta-binding protein in osteosarcoma cells and autoinduction of a novel 70 kDa form of the TGF binding protein. Texas Mineralized Tissue Society, May 20 - 23, 1992.
54. *Bonewald LF, Park-Snyder S, Miyazono K. Osteosarcoma osteoblast-like cell lines produce the 100 kDa form of latent TGFbeta 1 which lacks the binding protein. Texas Mineralized Tissue Society, May 20 - 23, 1992.
55. *Garcia C, Mundy GR, Bonewald LF. The osteoclast tartrate resistant acid phosphatase (TRAP) inducing activity produced by 1,25(OH)₂D₃ treated osteoblasts is abrogated by a specific inhibitor of 5-LO metabolites. Texas Mineralized Tissue Society, May 20 - 23, 1992.
56. *Dallas SL, Snyder SP, Mundy GR, Bonewald LF. Characterization of secreted latent TGF beta complexes in osteosarcoma cells. Symposium on Cancer Research in San Antonio, July 24, 1992.
57. Bonewald LF, Garcia C, Gallwitz W, Qiao M, Arnett T, Mundy GR. Ostoclast stimulating activity produced by osteoblast-like cells is inhibited by a 5-lipoxygenase inhibitor. J Bone Min Res 7 (Suppl 1):#882, 1992.
58. Harris, SE, Harris MA, Feng JQ, Sabatini M, Wozney J, Rosen V, Moutastsos I, Bonewald LF. Expression of bone morphogenetic proteins (BMPs) during differentiation of fetal rat calvarial osteoblasts in vitro. J Bone Min Res 7 (Suppl 1):#112, 1992.

59. Marcelli C, Choquet A, Bonewald LF, Bali JP, Baldet P, Mundy GR. Low doses of prostaglandin E2 mimic and increase in vivo effects of human recombinant transforming growth factor on bone turnover in normal mice. J Bone Min Res 7 (Suppl 1):#168, 1992.
60. Dallas S, Snyder SP, Miyazono K, Mundy GR, Bonewald LF. Autoinduction of forms of latent transforming growth factor beta (L-TGF beta) in bone cells. J Bone Min Res 7 (Suppl 1):#136, 1992.
61. Marra F, Bonewald LF, Abboud HE. Epidermal growth factor (EGF) increases latent TGF beta containing the 190 kDa binding protein in human liver fat-storing cells. American Association for the Study of Liver Diseases, Chicago, IL, November 4-7, 1993.
62. Bonewald LF, Makusky AJ, Garcia C, Mundy GR. Regulation of production of bone resorbing 5-lipoxygenase (5-LO) metabolites by 1,25 dihydroxyvitamin D₃ (1,25D₃). European Calcified Tissue Society, Heidelberg, Germany, April 25-29, 1993.
63. *Gilles J, Garcia C, Dallas M, Bonewald L. Avian osteoclasts produce a novel shallow type resorption on exposed dentine surfaces. Texas Mineralized Tissue Society, Houston, TX, May 4-7, 1993.
64. *Bonewald LF, Dallas M, Garcia C. Peptido-leukotrienes dramatically increase pit formation by human giant cells. Texas Mineralized Tissue Society, Houston, TX, May 4-7, 1993.
65. Bonewald LF, Gallwitz W, Garcia C, Oreffo R, Mundy GR. Establishment of a human giant cell tumor stromal cell line possessing a neoplastic phenotype and bone-resorbing activity. 3rd Annual Symposium on Cancer Research in San Antonio, San Antonio, TX, July 23, 1993.
66. Dallas SL, Park-Snyder S, Makusky AJ, Mundy GR, Miyazono K, Bonewald LF. Proliferating fetal rat calvarial cells produce distinctly different forms of latent transforming growth factor beta (TGF beta) compared to mineralizing cells. J Bone Min Res 8 (Suppl.1):#759, 1993.
67. Gilles J, Roodman GD, Reddy SV, Garrett IR, Mundy GR, Bonewald LF. Osteoclast expression of interleukin-6 (IL-6) is 100-fold greater than that of osteoblasts. J Bone Min Res 8 (Suppl.1):#201, 1993.
68. *Garcia C, Dallas M, Boyce BF, Dunstan CR, Mundy GR, Bonewald LF. Evidence that peptido-leukotrienes stimulate osteoclasts to resorb bone in vitro and in vivo. J Bone Min Res 8 (Suppl.1):#114, 1993.
69. Yoneda T, Izbicka E, Bonewald L, Jacobs C, Chavez J, Takaoka Y, Mundy GR. Identification of a novel hypocalcemic factor from the pancreas which inhibits bone resorption. J Bone Min Res 8 (Suppl 1):#230, 1993.

70. *Gutierrez G, Gallwitz W, Garrett IR, Rossini G, Dunstan CR, Izbicka E, Jacobs C, Bonewald L, Arnett T, Burgess W, Mundy GR. Identification of a novel bone-derived growth regulatory factor which is expressed in osteoclasts. J Bone Min Res 8 (Suppl 1): #117, 1993.
71. Bonewald LF, Gilles J, Dallas M, Garcia C, Komiya S, Mundy GR. Confocal microscopy reveals that avian osteoclasts produce a novel shallow-type resorption on exposed dentine surfaces. J Bone Min Res 8 (Suppl 1):#1088, 1993.
72. Dean DD, Schwartz Z, Bonewald L, Muniz OE, Howell DS, Boyan BD. MC-3T3-E1 osteoblasts cultured in the presence of ascorbic acid and -glycerophosphate produce matrix vesicles enriched in neutral metaballoproteinase. J Bone Min Res 8 (Suppl 1):#498, 1993.
73. Raval P, Schneider D, Bonewald LF, Anderson HC. Relationship between expression of bone morphogenic proteins and osteoinductive activity in osteosarcoma cells. 40th Annual Meeting, Orthopaedic Research Society, New Orleans, LA, February 21-24, 1994.
74. *Gilles J, Qiao M, Bonewald LF. Inhibition of cytokine-induced bone resorption but not interleukin-6 production by an inhibitor of 5-lipoxygenase. Sixth Conference and Workshop of the Texas Mineralized Tissue Society, San Antonio, Texas, May 13-15, 1994.
75. *Dallas SL, Mundy GR, Skeery TM, Dallas MR, Miyazono K, Bonewald LF. The latent TGF binding protein (LTBP) appears to be a fibrillar extracellular matrix protein which plays a role in bone formation. Sixth Conference and Workshop of the Texas Mineralized Tissue Society, San Antonio, Texas, May 13-15, 1994.
76. Bonewald LF, Johnstone D, Qiao M, Mundy GR, Millett A. The 5-lipoxygenase (5-LOP) inhibitor ZM230,487 blocks osteoclastic bone resorption. 9th International Conference on Prostaglandins and Related Compounds, Florence, Italy, June 6-10, 1994.
77. Boyan BD, Schwartz SP, Snyder DD, Yang DF, Twardzik D, Gomez R, Bonewald LF. 1,25-(OH)₂D₃ regulates production of latent TGF by chondrocytes and TGF activation by matrix vesicles. 16th Annual Meeting of the American Society for Bone and Mineral Research, Kansas City, MO, September 9-13, 1994.
78. *Mbalaviele G, Niewolna M, Feng JQ, Bonewald LF, Mundy GR, Yoneda T. Expression of the cell adhesion molecule E-cadherin is required not only for formation of multinucleated osteoclasts but osteoclastic bone resorption. 16th Annual Meeting of the American Society for Bone and Mineral Research, Kansas City, MO, September 9-13, 1994.
79. Dallas SL, Mundy GR, Skerry TM, Dallas MR, Miyazono K, LF Bonewald. The latent TGF beta binding protein (LTBP) appears to be a fibrillar extracellular matrix protein which plays a role in bone formation. 16th Annual Meeting of the American Society for Bone and Mineral Research, Kansas City, MO, September 9-13, 1994.

80. Bonewald L, Johnstone D, Millett A, Qiao M, Dallas M, Mundy GR. Evidence that 5-lipoxygenase (5-LPO) metabolites mediate the effects of PTH, PTH-rP and 1,25 dihydroxyvitamin D3 on osteoclastic bone resorption in vitro. 16th Annual Meeting of the American Society for Bone and Mineral Research, Kansas City, MO, September 9-13, 1994.
81. Gilles J, Qiao M, Mundy GR, Bonewald LF. Cytokines stimulate interleukin-6 production in bone to a much greater extent than systemic factors. 16th Annual Meeting of the American Society for Bone and Mineral Research, Kansas City, MO, September 9-13, 1994.
82. *Garcia C, De La Mata J, Roodman GD, Mundy GR, Bonewald LF. Novel effects of leukotriene B₄ on osteoclastic bone resorption. 16th Annual Meeting of the American Society for Bone and Mineral Research, Kansas City, MO, September 9-13, 1994.
83. Chen D, Chen H, Windle JJ, Harris MA, Bonewald LF, Wozney JM, Mundy GR, Harris SE. Characterization of cell lines from a transgenic mouse created by targeting expression of a bone specific protein osteocalcin with SV40 T antigen transgene. 16th Annual Meeting of the American Society for Bone and Mineral Research, Kansas City, MO, September 9-13, 1994.
84. Dallas SL, Garrett IR, Bonewald LF, Gilles J, Boyce BF, Radl J, Mundy GR. Evidence for a vicious cycle between myeloma growth in bone and osteoclastic bone resorption. 36th Annual Meeting of the American Society of Hematology, Nashville, TN, December 2-6, 1994.
85. Hummert TW, Schwartz Z, Bonewald LF, Dean DD, Boyan, BD. Local regulation of TGF in chondrocyte cultures. American Association of Dental Research Meeting, 1995.
86. Bonewald LF, Dallas S. Transfection of osteosarcoma cells (UMR-106) only expressing the 100 kDa form of the latent TGF beta beta complex with the TGF beta beta binding protein. Ninth Symposium of the Protein Society, Bethesda, M.D., March, 1995.
87. *Angeletti RH, Bibbs L, Bonewald LF, Fields GB, McMurray J, Moore WT, Stults JT. Formation of a disulfide bond in an octreotide-like peptide: A multicenter study (ABRF95). Ninth Symposium of the Protein Society, Bethesda, M.D., March, 1995.
88. Fields GB, Bibbs L, Bonewald LF, McMurray J, Moore WT, Smith AJ, Stults JT, Williams LC, Angeletti RH. Multi-center study of post-assembly problems in solid-phase peptide synthesis. Fourteenth American Peptide Symposium, Columbus, OH, June 1995.
89. Bonewald LF, Rosser J, Dallas M, Wozney J, Mundy GR, Harris SE. Expression of latent transforming growth factor beta binding protein (LTBP) is required for bone formation stimulated by bone morphogenetic protein 2 (BMP 2) in vitro. 17th Annual Meeting of the American Society of Bone and Mineral Research, Baltimore, M.D., September 1995.

90. Dallas SL, Miyazono K, Mundy GR, Bonewald LF. The latent TGF beta binding protein (LTBP) is a multifunctional matrix protein which regulates storage, release and activation of latent TGF betabeta in bone. 17th Annual Meeting of the American Society of Bone and Mineral Research, Baltimore, M.D., September 1995.
91. Flynn M, Mundy GR, Bonewald LF. The effects of 1,25 dihydroxyvitamin D₃ (1,25D₃) on osteoclast formation may be mediated through the arachidonic acid enzyme, 5-lipoxygenase. 17th Annual Meeting of the American Society of Bone and Mineral Research, Baltimore, M.D., September 1995.
92. Gilles J, Carnes D, Dallas M, Holt S, Bonewald L. Oral bone loss is increased in ovariectomized rats. 17th Annual Meeting of the American Society of Bone and Mineral Research, Baltimore, M.D., September 1995.
93. Gilles J, Holt S, Boyce B, Qiao M, Mundy G, Bonewald L. The periodontal pathogen CR14 causes bone resorption by generating 5-lipoxygenase metabolites of arachidonic acid metabolism. 17th Annual Meeting of the American Society of Bone and Mineral Research, Baltimore, M.D., September 1995.
94. Garrett IR, Dallas SL, Bonewald LF, Boyce BF, Dallas M, Radl J, Mundy GR. Evidence for bidirectional interactions between osteoclasts and myeloma cells. 17th Annual Meeting of the American Society of Bone and Mineral Research, Baltimore, M.D., September 1995.
95. *Hughes DE, Jilka R, Manolagas S, Dallas SL, Bonewald LF, Mundy GR, Boyce BF. Sex steroids promote osteoclast apoptosis in vitro and in vivo. 17th Annual Meeting of the American Society of Bone and Mineral Research, Baltimore, M.D., September 1995.
96. *Flynn MA, Qiao M, Dallas M, Mundy GR, Boyce BF, Bonewald LF. Mice lacking the gene for 5-lipoxygenase have increased cortical bone thickness. 18th Annual Meeting of the American Society of Bone and Mineral Research, Seattle, WA, September 1996.
97. Dallas SL, Miyazono K, Dallas M, Mundy GR, Bonewald LF. Transglutaminase is responsible for crosslinking the latent transforming growth factor- beta binding protein-1 (LTBP-1) to the bone extracellular matrix. 18th Annual Meeting of the American Society of Bone and Mineral Research, Seattle, WA, September 1996.
98. *Dallas SL, Miyazono K, Mundy GR, Bonewald LF. Novel pathways for signaling via release of bone matrix-bound growth factors. 18th Annual Meeting of the American Society of Bone and Mineral Research, Seattle, WA, September 1996.
99. Bonewald LF, Dallas S, Qiao M, Camacho NP, Boyan B, Boskey A. Comparison of mineralized matrix of fetal rat calvarial cells and MC-3T3-E1 osteoblast-like cells by fourier transform infrared spectroscopy (FT-IR). 18th Annual Meeting of the American Society of Bone and Mineral Research, Seattle, WA, September 1996.

100. Kato Y, Qiao M, Windle J, Bonewald LF. Establishment of a murine osteocyte-like cell line. 18th Annual Meeting of the American Society of Bone and Mineral Research, Seattle, WA, September 1996.
101. *Bonewald LF, Flynn M, Qiao M, Dallas MR, Mundy Gr, Boyce BF. Mice lacking 5-lipoxygenase have increased cortical bone thickness. 10th International Conference on Prostaglandins and Related Compounds, Vienna, Austria, September 1996.
102. *Flynn MA, Garcia C, Qiao M, Dallas M, Bonewald. Leukotriene LTB₄ stimulates isolated avian osteoclastic bone resorption. International Association for Dental Research, San Francisco, CA, 1996.
103. *Kato Y, Qiao M, Windle J, Bonewald LF. Murine osteocyte-like cell lines established from an osteocalcin promoter driven T-antigen transgenic mouse. Seventh Conference and Workshop of the Texas Mineralized Tissue Society, Houston, Texas, May 1996.
104. *Dallas SL, Miyazono K, Dallas M, Mundy GR, Bonewald LF. The enzymes, transglutaminase and plasmin, play a role in the incorporation and release of the latent TGFβ₁ complex from bone matrix. Seventh Conference and Workshop of the Texas Mineralized Tissue Society, Houston, Texas, May 1996.
105. *Flynn MA, Qiao M, Dallas M, Mundy GR, Boyce BF, Bonewald LF. Mice without the gene for 5-lipoxygenase have thicker cortical bone. Seventh Conference and Workshop of the Texas Mineralized Tissue Society, Houston, Texas, May 1996.
106. *Angeletti RH, Bibbs L, Bonewald LF, Fields GB, Kelly J, McMurray JS, Moore WT, Weintraub S. Analysis of racemization during "standard" solid phase peptide synthesis. Association for Biomedical Resource Facilities, San Francisco, CA, March 1996.
107. Pedrozo HA, Schwartz Z, Dean DD, Calderon F, Gomez R, Bonewald LF, Boyan BD. Chondrocytes express latent TGFβ₁ binding protein in a cell maturation-dependent fashion. Orthopaedic Research Society Federation, San Francisco, CA, February 9-13, 1997.
108. Williams DM, Grubbs BG, Rank RG, Bonewald LF. Generation of Transforming Growth Factor β₁ During Lower Genital Tract Chlamydial Infection. ASM Annual Meeting, 1997.
109. Witz CA, Doucet RV, Montoya IA, Bonewald LF, Schenken RS. Preferential Endometrial Stromal Cell Adhesion to Collagen IV and Collagen I is Inhibited by Echistatin and RGD Oligopeptide. Society for Gynecologic Investigation, 1997.
110. Witz CA, Montoya IA, Doucet RV, Bonewald LF, Schenken RS. Tumor Necrosis Factor β₁ Increases Endometrial Stromal Cell Adhesion to Extracellular Matrix Proteins. Society for Gynecologic Investigation, 1997.

111. *Bonewald L, Bibbs L, Kates S, Khatri A, Medzihradsky KF, McMurray JS, Weintraub S. Analysis of Internal Phosphate Shift Between Non-Adjacent Tyrosines Within A Single Peptide. ABRF 1997 Techniques at the Genome/Protein Interface, February 9-12, 1997, Baltimore, MD
112. Bonewald L, Bibbs L, Kates S, Khatri A, Medzihradsky KF, McMurray JS, Weintraub S. 1997 ABRF Peptide Synthesis Committee Study on a Peptide Containing a Phosphorylated Tyrosine. Fifteenth American Peptide Symposium, Nashville, TN, 1997.
113. Zhao S, Dallas SL, Peehl D, Cramer S, Bonewald L. Prostate-specific Antigen is a Potent Activator of the 100kDa Latent TGFbeta . TMTS, August, 1997.
114. Amano S, Traianedes K, Dallas SL, Bonewald L. Overexpression of latent TGFbeta binding protein in osteoblasts. TMTS, August, 1997.
115. Traianedes K, Dallas M, Bonewald L. Metabolites of the 5-lipoxygenase pathway inhibit dexamethasone or rBMP-2 stimulated bone-like nodule formation in fetal rat calvarial cells invitro. TMTS, August, 1997.
116. Flynn MA, Railsback RJ, Nicolella DP, Lankford J, Bonewald. Mice lacking the enzyme 5-lipoxygenase have differences in the mineralized component of their teeth. TMTS, August, 1997.
117. Zhao S, Mundy GR, Bonewald L. Identification of an osteocyte-specific antigen. TMTS, August, 1997.
118. Dallas SL, Saharinen J, Bruder S, Mundy GR, Bonewald. Co-Localization of the Latent TGFbeta beta Binding Protein-1 (LTBP1) and Fibrillin-1 to Microfibrils at sites of Bone Formation. ASBMR, September, 1997.
119. Zhao S, Dallas SL, Peehl D, Cramer S, Bonewald L. Prostate-specific Antigen is a Potent Activator of the 100kDa Latent TGFbeta . ASBMR, September, 1997.
120. Dallas SL, Mundy GR, Bonewald L. Proteolytic Cleavage of the Latent TGF beta Binding Protein-1 by Avian Osteoclasts- A possible mechanism for release of TGFbeta beta from bone matrix. ASBMR, September, 1997.
121. Pedrozo HA, Schwartz Z, Dean DD, Gomez R, Dallas SL, Bonewald LF and Boyan BD. Growth Plate Chondrocytes store latent TGF betabeta in their matrix through latent TGF Binding Protein. ASBMR, September, 1997.
122. Bonewald LF, Rosser J, Dallas M, Storey B, Mundy GR, Boyce BF. Mice which lack the functional gene for 5-lipoxygenase lose significantly less bone than normal mice after ovariectomy. ASBMR, September, 1997.
123. Nicolella DP, Nicholls AE, Bonewald LF and Lankford J. Mechanical Properties of Bone Form Mice Lacking 5-Lipoxygenase Differ Significantly from Normal Mice. ASBMR, September 1997.

124. Pedrozo HA, Schwartz Z, Dean DD, Mackebe T, Bonewald LF, Boyan BD. Chondrocytes store latent TGF betabeta in their matrix via a binding protein and release it in response to treatment with plasmin. Orthopaedic Research Society, New Orleans, La., Mar 1998.
125. Witz CA, Montaoy-Rodriquez IA, Chen E, Bonewald LF, Schenken RS. Composition of the Extracellular Matrix in the Peritoneum Society for Gynecological Investigation, Atlanta, GA. March 11, 1998.
126. Pedrozo HA, Schwartz Z, Xin-Sheng W, Ornoy A, Dean DD, Gomez R, Bonewald LF, Boyan BB Vitamin D3 metabolites regulate LTBP1 and latent TGFbeta beta1 expression as well as incorporation of latent TGF beta1 into the matrix of chondrocytes. Orthopaedic Research Society, Anaheim Ca. Feb 1-4, 1999.
127. Dallas SL, Bonewald LF, Mundy GR, Guise, TA. Release of Bone Matrix-Bound TGF-Beta by Breast Cancer Cells – A Novel Pathway for Regulation of Tumor Cells Behavior in Bone. Texas Mineralized Tissues Society Conference. Austin, TX. August 1998.
128. Traianedes K, Collier F, Nicholson GC, Wozney JM, Mundy GR, Bonewald LF. Primary Osteoblasts, Not Osteoclasts, Express 5-Lipoxygenase (5-LO) and 5-LO Activating protein (FLAP). Texas Mineralized Tissues Society Conference. Austin, TX. August 1998.
129. Zhao S, Ahuja SS, Mundy GR, Oyajobe B, Bonewald LF. A Comparison of the Murine Osteocyte-like Cell Line MLO-Y4 with other Cells with Dentritic Morphology. Texas Mineralized Tissues Society Conference. Austin, TX. August 1998.
130. Jiang JX, Zhao S, Zhang X, Adan D, Kato Y, Sprague E, Bonewald LF. Gap Junction Mediated Intercellular communication in Osteocyte-like MLO-Y4 Cells. Texas Mineralized Tissues Society Conference. Austin, TX. August 1998.
131. Watanabe A, Amano S, Traianedes K, Dallas SL, Bonewald LF. Expression of Latent Transforming Growth Factor-beta Binding Protein (LTBP)-1 Affects Bone Nodule Formation by Osteoblastic Cells. Texas Mineralized Tissues Society Conference. Austin, TX. August 1998.
132. Pedrozo HA, Mokeyev T, Schwartz Z, Xin-Sheng W, Ornoy A, Dean DD, Gomez R, Bonewald LF, Boyan BD. Vitamin D₃ Metabolites Regulate LTBP1 Expression and LTGF-beta 1 Incorporation into the Extracellular Matrix of Chondrocytes. Texas Mineralized Tissues Society Conference. Austin, TX. August 1998.
133. Bonewald LF, Boskey A, Yoichi K. Potential Mineralization by Osteocyte-like Cell Lines. Sixth International Conference of the Chemistry and Biology of Mineralized Tissues. Vittel, France. November 1998.

134. Plotkin LI, Bellido T, Bonewald LF, Papapoulos SE, Jilka RL, Manolagas SC. Bisphosphonates Prevent Glucocorticoid-Induced Apoptosis of Osteocytes in Vitro: a Putative Mechanism Influencing Mechanosensing. ASBMR-IBMS Second Joint Meeting. San Francisco, CA. December 1998.
135. Jiang JX, Zhao S, Zhang Z, Adan D, Kato Y, Sprague E, Bonewald LF. Bone Physiological Factors PTH, Estrogen and Mechanical Stress Stimulate Gap Junction Mediated Intercellular Communication in Osteocyte-like MLO-Y4 Cells. ASBMR-IBMS Second Joint Meeting. San Francisco, CA. December 1998.
136. *Dallas SL, Bonewald LF, Mundy GR, Guise TA. Release of Bone Matrix-Bound TGF beta by Breast Cancer Cells – A Novel pathway for Regulation of Tumor Cell Behavior in Bone. ASBMR-IBMS Second Joint Meeting. San Francisco, CA. December 1998.
137. Chirgwin JM, Qiao M, Ibarra J, Bonewald LF, Horowitz PM. Highly Purified GroEL Protein from *Escherichia coli* does Not Stimulate Bone Resorption. ASBMR-IBMS Second Joint Meeting. San Francisco, CA. December 1998.
138. Flynn MA, Holt S, Bonewald LF. Lipopolysaccharide (LPS) Induces Osteoclast Formation Through 5-Lipoxygenase (5LO). ASBMR-IBMS Second Joint Meeting. San Francisco, CA. December 1998.
139. Traianedes K, Collier FM, Nicholson GC, Wozney JM, Mundy GR, Bonewald LF. Primary Osteoblasts, Not Osteoclasts, Express 5-Lipoxygenase (5-LO) and 5-LO Activating Protein (FLAP). ASBMR-IBMS Second Joint Meeting. San Francisco, CA. December 1998.
140. Zhao S, Kato Y, Wozney JM, Mundy GR, Bonewald LF. Identification of an osteocyte-specific antigen. ASBMR-IBMS Second Joint Meeting. San Francisco, CA. December 1998.
141. Zhao S, Kato Y, Traianedes K, Roodman D, Sprague E, Bonewald LF. Osteocytes as Supporters of Osteoclast Formation. TMTS 11th Annual Conference. League City, TX. September 1999.
142. Ahuja S, Zhao S, Bellido T, Plotkin LI, Sato N, Bonewald LF. CD40 Ligand (CD40L) is an Anti-Apoptotic Factor for the Osteocyte-like Cell Line MLO-Y4. TMTS 11th Annual Conference. League City, TX. September 1999.
143. Cheng B, Kato Y, Luo J, Zhao S, Sprague E, Bonewald LF, Jiang JX. Shear Stress Redistributes Connexin 43 Protein While Stimulating Gap Junction Mediated Intercellular Communications in Osteocyte-Like MLO-Y4 Cells. TMTS 11th Annual Conference. League City, TX. September 1999.
144. Tasian G, Rosser J, Reveles X, Leach RL, Dallas S, Bonewald LF. Analysis of Transgenic Mice Overexpressing Latent TGFbeta beta Binding Protein-1 by PCR and Fish. TMTS 11th Annual Conference. League City, TX. September 1999.

145. Lohmann C, Schwartz Z, Wieland M, Cochran DL, Dean DD, Textor M, Bonewald LF, Boyan BD. Pretreatment of Dentin Slices with Tetracycline or Osteoclasts Affects Osteoblast Proliferation and Differentiation. TMTS 11th Annual Conference. League City, TX. September 1999.
146. Pedrozo HA, Schwartz Z, Robinson M, Gomez R, Bonewald LF, Dean DD, Boyan BD. Potential Mechanisms for the Plasmin-Mediated Release and Activation of Latent TGF beta1 from the Extracellular Matrix of Growth Plate Chondrocytes. ASBMR 21st Annual Meeting. St. Louis, MO. September 30 – October 4 1999.
147. Li X, Rosser J, Ybarra J, Qiao M, Bonewald LF, Horowitz PM, Chirgwin JM. Polyadenylic Acid is a Novel Stimulator of Osteoclast Formation and RANK Ligand Expression. ASBMR 21st Annual Meeting. St. Louis, MO. September 30 – October 4 1999.
148. Dean DD, Bonewald LF, Sisk MA, Sylvia VL, Cochran DL, Lohmann CH, Boyan BD, Schwartz Z. Maturation State Determines the Response of Osteogenic Cells to Surface Roughness and 1,25-(OH)₂D₃. ASBMR 21st Annual Meeting. St. Louis, MO. September 30 – October 4 1999.
149. Dallas SL, Bonewald LF, Shen Tu S, Cook BG, Yin JJ, Mundy GR, Guise TA. Breast Cancer Cells which Cause Osteolytic Metastases Release Bone Matrix-Bound TGFbeta beta Via Proteolysis of Latent Transforming Growth Factor Beta Binding Protein-1 (LTBP1). ASBMR 21st Annual Meeting. St. Louis, MO. September 30 – October 4 1999.
150. Watanabe A, Traianedes K, Dallas MR, Dallas SL, Amano S, Bonewald LF. Overexpression of Latent TGF beta Binding Protein-1 (LTBP-1) in Osteoblasts Results in Reduced Nodule Formation in vitro. ASBMR 21st Annual Meeting. St. Louis, MO. September 30 – October 4 1999.
151. Kato Y, Boskey A, Spevak L, Dallas M, Takahashi M, Kajiwarra J, Hori M, Mundy GR, Bonewald LF. Establishment of an Osteoid Osteocyte-Like Cell Line that is the Target for Parathyroid Hormone (PTH)-Induced Mineralization. ASBMR 21st Annual Meeting. St. Louis, MO. September 30 – October 4 1999.
152. Ahuja SS, Zhao S, Bellido T, Plotkin LI, Sato N, Bonewald LF. CD40 Ligand (CD40L) is an Anti-Apoptotic Factor for Bone Cells. ASBMR 21st Annual Meeting. St. Louis, MO. September 30 – October 4 1999.
153. Lohmann CH, Schwartz Z, Wieland M, Cochran DL, Dean DD, Textor M, Bonewald LF, Boyan BD. Pretreatment of Dentin Slices with Tetracycline or Osteoclast Affects Osteoblast Proliferation and Differentiation. ASBMR 21st Annual Meeting. St. Louis, MO. September 30 – October 4 1999.
154. Cheng B, Kato Y, Luo J, Zhao S, Sprague E, Bonewald LF, Jiang JX. Shear Stress Redistributes Connexin 43 Protein While Stimulating Gap Junction Mediated Intercellular Communications in Osteocyte-Like MLO-Y4 Cells. ASBMR 21st Annual Meeting. St. Louis, MO. September 30 – October 4 1999.

155. Traianedes K, Dallas MR, Suh H, Mundy GR, Bonewald LF. Arachidonate Shunting-Potential Mechanism of Glucocorticoid-Induced Bone Loss. ASBMR 21st Annual Meeting. St. Louis, MO. September 30 – October 4 1999.
156. Elliott J, Lohmann CH, Bonewald LF, Dean DD, Sylvia VL, Cochran DL, Schwartz Z, Boyan BD. Ti Surface Roughness Modulates Response to 1,25-(OH)₂D₃ Depending on Maturation State in the Osteoblast Lineage. IADR 2000. Washington, DC.
157. Boyan BD, Lohmann DH, Bonewald LF, Dean DD, Sylvia VL, Cochran DL, Schwartz Z. Dentin Slices Treated with Either Tetracycline or Osteoclasts Regulate Osteoblast Proliferation and Differentiation. IADR 2000. Washington, DC.
158. Lohmann CH, Bonewald LF, Sisk MA, Sylvia VL, Cochran DL, Dean DD, Boyan BD, Schwartz Z. Maturation State Determines the Response of Osteogenic Cells to Titanium Surface Roughness and 1,25-(OH)₂D₃. Ortho Res Soc 46th Annual Meeting. Orlando, FL. March 2000.
159. Dallas, SL, Peters, P., Rossner, JR, Bonewald, LF. Role for Fibronectin in the Assembly of LTBP1 into Bone Extracellular Matrix. ASBMR 22nd Annual Meeting, Toronto, Canada, September 22-26. 2000.
160. Lee, S. Harris, SE, Roodman, G.D., Sprague, E, Bonewald, LF. Chemotaxis; A Potential Mechanism whereby Osteocytes Target Osteoclast Precursors to Bone. ASBMR 22nd Annual Meeting, Toronto, Canada, September 22-26, 2000.
161. Bonewald, LF, Zhao, S, Zhang, Y, Harris, SE. Expression of the Osteocyte-specific Antigen, E11, in MLO-Y4 Cells and Mineralizing Osteoblasts. ASBMR 22nd Annual Meeting, Toronto, Canada, September 22-26, 2000.
162. Karsdal, MA, Larsen, L, Delaisse, J, Bonewald, LF, Foged, NT, Lochter, A. Osteoblasts, but not Osteocytes, Depend on Matrix Metalloproteases and TGF beta for Survival: Implications for Conversion of Osteoblasts into Osteocytes. ASBMR 22nd Annual Meeting, Toronto, Canada, September 22-26, 2000.
163. Takeshita, N, Rosser, JL, Hinck, AP, Bonewald, LE. Peptide Motifs that Bind Specifically to TGFbeta Type II Receptor. ASBMR 22nd Annual Meeting, Toronto Canada, September 22-26, 2000.
164. Cheng, B, Kato, Y, Zhao, S, Luo, J, Sprague, E, Bonewald, LF, Jiang, JX. Prostaglandin is Essential for Gap Junction-mediated Intercellular Communication between Osteocytes in Response to Mechanical Strain. ASBMR 22nd Annual Meeting, Toronto, Canada, September 22-26, 2000.
165. Choi, S, Han, J, Bonewald, Roodman, GD. Mechanism of Action of ADAM8, a Novel Autocrine/Paracrine Stimulator of Osteoclast Formation. ASBMR 22nd Annual Meeting, Toronto, Canada, September 22-26, 2000.

166. *Steinhelper, ME, Libby, LM, Garcia, AD, Rees, RA., Rosser, J, Story, B., Maski, MC., Bonewald, LF, John, SWM, C-type Natriuretic Peptide is Essential for Post-Natal Skeletal Growth, Abstract #1014, ASBMR 23rd Annual Meeting, Phoenix, AZ., October 12 – 16, 2001.
167. Dallas, SL, Bonewald, LF, Pesciotta Peters, D, Barley, C, Rosser, JL, Mosher, DF, Kielty, CM, Deletion of the Fibronectin Gene Causes a Dramatic Delay in Incorporation of LTBP-1 into the Extracellular Matrix: Rescue With Exogenous Fibronectin., Abstract #F053, 23rd Annual ASBMR Meeting, Phoenix, AZ., October 12 – 16, 2001.
168. Bonewald, LF, Traianedes, K, Amano, S, Rosser, J, Barley, C., Dallas, SL, Increased Bone Mineral Density in Aging Male Mice Overexpressing a Mutated Form of Latent TGFbeta Binding Protein (LTBP-1), Abstract #SU194, ASBMR 23rd Annual Meeting, Phoenix, AZ., October 12 – 16, 2001.
169. Tan X, Zhang J, Lu Y, Bonewald L, and Feng J, Dentin Matrix. Protein (DMP1) is Regulated by Different Mechanisms in Tooth Compared to Bone, Seq. #18, Abstract #0098, IADR 80th Annual Meeting, San Diego, CA., March 6 - 9, 2002.
170. Green RQ, Carnes DL, Rosser JL, Bonewald LF. High dose lipopolysacharride stimulates bone restoration in mice lacking 5-lipoxygenase. Seq. #71, Abstract #0664, IADR 80th Annual Meeting, San Diego, CA., March 6-9, 2002.
171. Casasola D, Boyan BD, Bonewald LF, Paschalis EP, Lohmann CH, Rosser JL, Cochran DL, Dean DD, Schwartz Z, Boskey AL. Surface Topography Modules BMP-2 Regulation of Calcification. Seq. #134, Abstract #1416, IADR 80th Annual Meeting, San Diego, CA., March 6-9, 2002.
172. *Harris SE, Harris MA, Feng JQ, Bonewald LF. Gene expression profiling and expression of the E11 antigen during osteoblast to osteocyte differentiation. Seq. #231, Abstract #2493, IADR 80th Annual Meeting, San Diego, CA., March 6-9, 2002.
173. Lu Y, Harris M, Zhang J, Bonewald L, Harris S, Feng J. Characterization of the Murine E11 Gene and its Proximal Promoter in vitro. Seq. #263, Abstract #2872, IADR 80th Annual Meeting, San Diego, CA., March 6-9, 2002.
174. Duggan JM, Sylvia VL, Nemere I, Bonewald LF, Dean DD, Schwartz Z, Boyan BD. Osteoblasts Differentially Exhibit Rapid Responses to Mediated. Seq. #305, Abstract #3299, IADR 80th Annual Meeting, San Diego, CA., March 6-9, 2002.
175. Dallas SL, Jones CJP, Barley C, Peters DM, Mosher DF, Bonewald LF, Humphries MJ, Kielty CM. Fibronectin is Required for Efficient Assembly of Latent TGF beta beta Binding Protein-1 into the Extracellular Matrix. Seq. #324, Abstract #3582 IADR 80th Annual Meeting, San Diego, CA., March 6-9, 2002.
176. Remmer HA, Ambulos N, Bonewald LF, Dougherty JJ, Eisenstein E, Fowler E, Johnson J, Khatri A, Ritter N, Weintraub ST. Synthetic Peptides as Certified Analytical Standards. Abstract P71-M, ABRF2002 Biomolecular Technologies, Austin, TX., March 9-12, 2002.

177. Dallas SL, Bonewald LF, Barley C, Chen Q, Guthrie J. Identification of Proteolytic Cleavage Sites in Latent TGF beta Binding Protein-1 that may be Responsible for Release of TGF beta During Bone Matrix Degradation. ASBMR Annual Meeting, San Antonio, TX 2002.
178. Feng JQ, Ye L, Chen D, Huang H, Zhang J, Lu Y, Li G, Dallas SL, Harris SE, Bonewald LF, Mishina Y. Dmp1-Deficient Mice Develop Dwarfism, Chondrodysplasia, and Exhibit Disorganized Bone Mineralization During Postnatal Development. ASBMR Annual Meeting, San Antonio, TX 2002.
179. Nicolella DP, Bonewald LF, Lankford J. Microcrack Matrix Strain Is 15 Times Greater than Average Global Strains; Implications for Osteocyte Signaling. ASBMR Annual Meeting, San Antonio, TX 2002.
180. Gluhak-Heinrich J, Pavlin D, Bonewald LF, MacDougall M, Harris SE. Increased Dentin Matrix Protein (DMP1) Gene Expression in Osteocytes during Mechanical Loading of Bone. ASBMR Annual Meeting, San Antonio, TX 2002.
181. Lohmann CH, Schwartz Z, Liu Y, Li Z, Albert SA, Simon BJ, Sylvia VL, Dean DD, Bonewald LF, Donahue HJ, Boyan BD. Pulsed Electromagnetic Fields Affect Phenotype and Connexin 43 Protein Expression in MLO-Y4 Osteocyte-like Cells and ROS 17/2.8 Osteoblast-like Cells. ASBMR Annual Meeting, San Antonio, TX 2002.
182. Cheng B, Gu S, Wang X, Sprague E, Bonewald LF, Jiang JX. Prostaglandin E2 Receptor (EP2) Is Responsible for Increased Intercellular Communication Between Osteocyte-like Cells in Response to Mechanical Strain. ASBMR Annual Meeting, San Antonio, TX 2002.
183. S. Ko, Harris SE, Dallas M, Bonewald LF. A Potential Role for Osteocytes in Recruiting Osteoclast Precursors to Targeted Bone Sites. ASBMR Annual Meeting, San Antonio, TX 2002.
184. Dean DD, Boyan BD, Bonewald LF, Paschalis EP, Lohmann CH, Rosser J, Cochran DL, Schwartz Z, Boskey AL. BMP-2 Regulation of Calcification is Modulated by Substrate Microtopography. ASBMR Annual Meeting, San Antonio, TX 2002.
185. Barragan-Adjemian C, Eick D, Dusevich V, Dallas M, Nicolella D, Bonewald LF. Characterization of Mineralized, Honeycombed Sheets Made by MLO-A5 Cells and Comparison with Mineralized Nodules Made by Primary Osteoblasts. ASBMR Annual Meeting, San Antonio, TX 2002.
186. Remmer HA, Ambulos N, Bonewald LF, Dougherty Jr JJ, Eisenstein E, Fowler E, Johnson J, Khatri A, Lively MO, Ritter N, Weintraub ST. Synthetic Peptides as Certified Analytical Standards. ABRF, Denver, CO 2003.
187. Barragan-Adjemian C, Dallas M, Dusevich V, Eick JD, Bonewald LF. Continuous Parathyroid Hormone (PTH) Inhibits Mineralization of MLO-A5 Producing a Dystrophic Mineral in vitro. AADR, San Antonio, TX 2003.

188. Lu Y, Dallas SL, Mishina Y, Harris SE, Bonewald LF, Feng JQ. Dentin Matrix Protein-1 (Dmp-1) is Not Essential for Initiation of Apatite Crystal Formation But is Critical for Formation of Normal Mineral Structure. AADR, San Antonio, TX 2003.
189. Krishnaswamy A, Guo D, Harris MA, Bonewald LF, Harris SE, Lichtler AC. Using Bioinformatic and Experimental Approaches to Identify Genomic Regulatory Networks Responsive to Dlx5, a Transcription Factor Induced by BMP2 and Required for Bone Formation. AADR, San Antonio, TX 2003.
190. Ye L, Zhu Q, Tartaix P, Huang H, Zhang J, Boskey A, Dallas SL, Mishina Y, Harris SE, Bonewald LF, Feng JQ. Deletion of the Dentin Matrix Protein (Dmp-1) Gene Results in Severe Craniofacial Defects During Post-natal Development. AADR, San Antonio, TX 2003.
191. Zhang J, Dusevich V, Deben S, Zhu Q, Wang Y, Spencer P, Dallas SL, Harris SE, Eick JD, Bonewald LF, Feng JQ. Overexpression of Human Bone Morphogenetic Protein-4 (BMP4) Results in Defects and Reduced Mineralization in the Developing Tooth AADR, San Antonio, TX 2003.
192. Remmer H, Ambulos N, Bonewald LF, Dougherty J, Eisenstein E, Fowler E, Johnson J, Khatri A, Lively M, Ritter N, Weintraub S. Synthetic Peptides as Certified Analytical Standards. American Peptide Society, 2003.
193. Zhang K, Ye L, Li Z, Rosser J, Bonewald L. Characterization of a Monoclonal Antibody Specific for Osteocytes by Immunostaining but Not Specific by Western Blot Analysis. J Bone Miner Res 18(Suppl 2):S150:SA282, 2003.
194. Barragan-Adjemian C, Eick JD, Dusevich V, Dallas M, Nicolella DP, Bonewald L. Identification and Characterization of Spherical Structures Associated with Mineralization in MLO-A5 Cells. J Bone Miner Res 18(Suppl 2):S107:SA022, 2003.
195. Cherian PP, Wang X, Bonewald L, Jiang JX. Gap Junctions and Hemichannels Mediate Effects of Intermittent and Continuous Parathyroid Hormone (PTH) on Mineralizing Cells. J Bone Miner Res 18(Suppl 2):S342:M195, 2003.
196. Dallas S, Bonewald L, Barley C, Chen Q, Guthrie J. Identification of Plasmin and MMP Cleavage Sites that Result in Release of Bone Matrix-Bound TGF-beta by Breast Cancer Cells. J Bone Miner Res 18(Suppl 2):S311:M064, 2003.
197. Gluhak-Heinrich J, Pavlin D, Kotha SP, Bonewald L, Schaffler MB, Harris S. Comparison of Dentin Matrix Protein 1 (DMP1) Gene Expression with Experimental and Finite Element Strain Analysis in the Rat Ulnar Fatigue. J Bone Miner Res 18(Suppl 2):S219:SU161, 2003.
198. Harris S, Harris MA, Guo D, Robling AG, Bonewald L, Turner CH. Gene Expression Profiling After Mechanical Loading in the Mouse Ulna Model. J Bone Miner Res 18(Suppl 2):S133:SA66, 2003.

199. Huang H, Ye L, Xie Y, Ko S, Harris S, Bonewald L, Mishina Y, Feng JQ. Bone Repair is Dramatically Delayed in Dentin Matrix Protein-1 (Dmp1) Deficient Mice. *J Bone Miner Res* 18(Suppl 2):S197:SU073, 2003.
200. Ko S, Harris SE, Dallas M, Bonewald L. MLO-Y4 Cells Produce an Unknown Chemoattractant for Osteoclast Precursors. *J Bone Miner Res* 18(Suppl 2):S150:SA281, 2003.
201. Nicolella DP, J. S-JA, Cherian PP, Shin D, Jiang JX, Sprague E, Lankford J, Bonewald L. Correlation of Osteocyte-like Cell Deformation Due to in vitro Fluid Flow Shear Stress with Attachment, Dendrite Extension, and PGE2 Production. *J Bone Miner Res* 18(Suppl 2):S71:F167, 2003.
202. Yang W, Harris MA, Guo D, Krisnaswamy A, Bonewald L, Harris S. Gene Expression Profile Comparisons Between 2T3 Osteoblasts at Low Density and Confluent Stages With Osteocyte-like MLO-Y4 Cells at High and Low Densities. *J Bone Miner Res* 18(Suppl 2):S217:SU153, 2003.
203. Yang W, Lu Y, Harris MA, Guo D, Gluhak-Heinrich J, Zhang J, Krisnaswamy A, Bonewald L, Feng JQ, Lichtler A, Rowe D, Harris S. The Cis-Regulatory Region, -9624 to +1996 for Dentin Matrix Protein Contains Modules that Increase Expression in Early Pre-Osteocytes in the Context of a Mineralized Matrix. *J Bone Miner Res* 18(Suppl 2):S336:M172, 2003.
204. Ye L, Huang H, Xie Y, Lu Y, Chen D, Dallas S, Bonewald L, Mishina Y, Feng JQ. Dentin Matrix Protein-1 (Dmp1) Mice Display Multiple Abnormalities During Early and Late Skeletal Development. *J Bone Miner Res* 18(Suppl 2):S39:1148, 2003.
205. Ye L, MacDougall M, Benavides E, Rios HF, Cobb C, Barker B, Zhang S, Bonewald L. Dentin Matrix Protein-1 (Dmp1) Null Mice Display Early Onset Periodontitis. *IADR 2004*
206. Zhang J, Harris S, Eick JD, Vladimir D, Bonewald L, MacDougall M, Feng JQ. Transgenic targeting of Bmp4 to ameloblast disrupts enamel maturation. *IADR 2004*
207. Rios HF, Luo G, Dusevich V, Ye L, Anderson H, Bonewald L, Barker B, Dunlap C, Eick JD, Benavides E, Feng JQ. Absence of Root Formation in an Osteopetrotic Mouse Model. *IADR 2004*.
208. Zhang K, Shiva K, Ye L, Dallas M, Feng JQ, Bonewald LF. The Osteocyte-specific Antigen, E11, Is Responsive to Mechanical Loading in vitro and in vivo in Bone Distant from Maximal Strain. *J Bone Miner Res* 19(Suppl 2): 2004.
209. Veno PA, Guthrie J, Zhao J, Dallas MR, Bonewald J, Dinakarpanthian D, Gopathi N, Bonewald LF, Dallas SL. Protein Profiling of Highly Osteolytic M.D.A-231 Breast Cancer Expressing High Gelatinase Activity versus Poorly Osteolytic M.D.A-231 Breast Cancer with Low Gelatinase Activity. *J Bone Miner Res* 19(Suppl 2): 2004.

210. Zhang J, Harris S, Dusevich V, Tan X, Guo D, Eick D, Bonewald L, Feng JQ. Overexpression of human Bone Morphogenetic Protein-4 (BMP4) driven by the 1.1kb murine Bmp4 promoter results in smaller size and reduced bone mineral density in transgenic mice. *J Bone Miner Res* 19(Suppl 2): 2004.
211. Nicolella DP, Moravits DM, Lankford J, Bonewald LF. Bone Matrix Strain is Amplified at Osteocyte Lacunae in Cortical Bone. *J Bone Miner Res* 19(Suppl 2): 2004.
212. Cherian P, Wang X, Bonewald LF, Jiang JX. The Effects of Intermittent but not Continuous Parathyroid Hormone (PTH) on Mineralization are Mediated through Hemichannels. *J Bone Miner Res* 19(Suppl 2): 2004.
213. Chen X, Ng KW, Bonewald LF, Broadus AE. Role of TREK stretch-activated potassium channels in mechanically-induced PTHrP gene expression in osteoblasts. *J Bone Miner Res* 19(Suppl 2): 2004.
214. Rios HF, Xie Y, Kotha S, Nicholella D, Ye L, Bonewald LF, Feng JQ. Dentin Matrix Protein-1 (DMP-1) Plays a Key Role in Osteocyte Function through Regulation of Mineralization and Response to Mechanical Strain. *J Bone Miner Res* 19(Suppl 2): 2004.
215. Kotha S, Gluhak-Heinrich J, Schaffler M, Harris S, Bonewald LF. Correlations between DMP1/ MEPE Gene Expression in osteocytes and Axial Strains in an In-vivo Model of Overload. *J Bone Miner Res* 19(Suppl 2): 2004.
216. Ye L, Mishina Y, Zhang J, Zhang S, Xie Y, Kamiya N, Dusevich V, Li L, Eick D, Bonewald L, Feng JQ. Ectopic Bone Formation in Tooth Pulp, Absence of Cementum, Hyperplastic Periodontal Ligament and Reduced or no Dentin in Mice lacking Bone Morphogenetic Protein Receptor type 1A (BMPR1A). *J Bone Miner Res* 19(Suppl 2): 2004.
217. Yang W, Kalajzic I, Lu Y, Guo D, Harris MA, Gluhak-Heinrich J, Bonewald LF, Feng JQ, Rowe JW, Harris SE. Identification of An Osteocyte-specific, Mechanically Regulated Region of The Dentin Matrix Protein 1 Promoter. *J Bone Miner Res* 19(Suppl 2): 2004.
218. Gluhak-Heinrich J, Kotha SP, Bonewald LF, Schaffler MB, Harris SE. In-vivo Site-Specific Correlation of Dentin Matrix Protein 1 (DMP1) and Matrix Extracellular Phosphoglycoprotein (MEPE) Gene Expression: Effect of Overload. *J Bone Miner Res* 19(Suppl 2): 2004.
219. Harris SE, Gluhak-Heinrich J, Harris MA, Yang WM, Bonewald LF, Robling AG, Turner CH. Mapping Expression Patterns of Mechanically Responsive Genes, DMP1 and MEPE, in Osteocytes Using the Mouse Ulnae: Correlation to Predicted Local Strain. *J Bone Miner Res* 19(Suppl 2): 2004.
220. Barragan-Adjemian C, Nicolella D, Dusevich V, Dallas M, Eick JD, Bonewald LF, A Proposed Model for the Mineralization of Bone”, ICCMBT, Oct, 2004.

221. Qin C, Baba O, Brunn JC, McKee M.D., Bonewald, L, Butler WT, "Unique Similarities between Dentin Matrix Protein 1 and Dentin Sialophosphoprotein, ICCBMT, Oct. 2004.
222. Baba O, Qin Ch, Brunn JC, Bonewald, LF, Terashima T, Butler, WT., "Differential Localization of Fragments of Dentin Matrix Protein 1 (DMP1) in Developing Rat Molar and Alveolar Bone, ICCBMT, Oct. 2004.
223. Ye L, Huang H, Lu Y, Bonewald L, MacDougall M, and Feng JQ, "Dentin Matrix Protein 1 (DMP1) is Essential for Normal Development of Both Endochondral and Intramembranous Bone during Craniofacial Development" ICCBMT, Oct. 2004
224. Veno PA, Guthrie J, Zhao J, Dallas MR, Bonewald J, Dinarkarpandian D, Gopathi N, Bonewald LF, Dallas SL Protein Profiling of Highly Osteolytic M.D.A-231 Breast Cancer Cell Lines with High Gelatinase Activity Compared to Poorly Osteolytic Lines with Low Gelatinase Activity ABRF, Savannah, Ga, 2005
225. Remmer HA, Ambulos N, Bonewald LF, Dougherty JJ, Fowler E, Johnson J, Khatri A, Lively MO, Ritter N, Schwarz F, Weintraub, ST Synthetic Peptides as Certified Analytical Standards ABRF, Savannah, Ga, 2005.
226. S. Kotha, S. Gidla, J. Gluhak-Heinrich, M. Schaffler, S. Harris, L. Bonewald. A 3D Model of Osteocyte Gene Expression in Response to Mechanical Loading - Correlation of DMP1 Gene Expression in Osteocytes with Local Strain, ASBMR, Nashville, TN, Sept. 23-27, 2005.
227. D. Guo, J. Guthrie, J. Zhao, L. Barragan, S. Harris, L. Bonewald. Proteomic Comparison of Osteoblasts and Osteocytes Reveal Unique Protein Expression Patterns, ASBMR, Nashville, TN, Sept. 23-27, 2005.
228. P. P. Cherian, A. J. Siller-Jackson, S. Burra , S. Gu , L. F. Bonewald , E. Sprague, J. X. Jiang, [1095] Potential Role of $\alpha 5$ Integrin as a Mechanosensor in the Opening of Hemichannels for the Release of Prostaglandin in Response to Mechanical Stress. ASBMR, Nashville, TN, Sept. 23-27, 2005.
229. Z. Xiao, S. Zhang, J. Mahlios, J. Calvet, L. Bonewald, L. Quarles [1061] Polycystin-1: A Novel Mechanosensor in Osteoblast/Osteocytes Coupled to Runx2, ASBMR, Nashville, TN, Sept. 23-27, 2005.
230. P. A. Veno, J. Zhao, J. Guthrie, S. Ko, L. F. Bonewald, M. R. Dallas, S. L. Dallas [SU111] Osteocyte Stimulation of Chemotaxis and Invasiveness of Breast Cancer: A Proteomic Analysis. ASBMR, Nashville, TN, Sept. 23-27, 2005
231. J. Ling, M. Miller, D. Moravits, J. Lankford, L. Bonewald, D. Nicolella, [SA284] Microstructural Compositional Changes Associated with Osteocyte Lacunae Detected Using Raman Imaging. ASBMR, Nashville, TN, Sept. 23-27, 2005.
232. S. E. Harris, J. Gluhak-Heinrich, M. A. Harris, W. Yang, P. S. N. Rowe, Y. Xie , H. Rios, S. Zhang, M. D. McKee, L. F. Bonewald, J. Q. Feng. [SA462] MEPE is Overexpressed

in Osteocytes of the DMP1 (dentin matrix protein 1) Null Mouse, Contributing to the Hypophosphatemia and Osteomalacia. ASBMR, Nashville, TN, Sept. 23-27, 2005.

233. Gluhak-Heinrich, W. Yang, L. F. Bonewald, A. G. Robling, C. H. Turner, S. E. Harris. Orthodontics, [SA168] Mechanically Induced DMP1 and MEPE Expression in Osteocytes: Correlation to Mechanical Strain, Osteogenic Response and Gene Expression Threshold, ASBMR, Nashville, TN, Sept. 23-27, 2005.
234. W. Yang, M. A. Harris, D. Guo, L. F. Bonewald, S. E. Harris,[SA291] Gene Expression Signatures of the Mouse MLO-Y4 Osteocyte Cell Model: Pathway and Gene Set Enrichment Analysis, ASBMR, Nashville, TN, Sept. 23-27, 2005.
235. Y. Lu, H. F. Rios, D. Nicolella, S. Kotha, S. Zhang, Y. Xie, L. Ye, J. D. Eick, L. Bonewald, J. Q. Feng, [1111] Deletion of DMP1 Results in Osteomalacia and Abnormalities in the Osteocyte Lacuno-Canalicular System - Rescue by Re-expression of DMP1 in the Osteoblast Lineage But Not by High Phosphate Diet. ASBMR, Nashville, TN, Sept. 23-27, 2005.
236. W. Yao, G. Balooch, R. Nalla, M. Guive, J. Kinney, L. Bonewald, N. Lane 1[SA370] CD40 Ligand Prevents Glucocorticoid-induced Bone loss by Increasing Bone Formation, Decreasing Bone Resorption and Inhibiting Osteocyte Apoptosis, ASBMR, Nashville, TN, Sept. 23-27, 2005.
237. C. Barragan-Adjemian, D. Guo, J. Rosser, L. Bonewald, [SA287] A Proposed Function for E11 in Osteoblast to Osteocyte Differentiation and Mineralization. ASBMR, Nashville, TN, Sept. 23-27, 2005.
238. J. Zhang, J.D. Eick, D. Guo, V. Dusevich, L.F. Bonewald, and S.E. Harris, #0030, Bmp4 Is Essential for Tooth Terminal Cytodifferentiation: Gain-Loss Function Study, IADR/AADR/CADR, Baltimore, Maryland, March 9-12, 2005.
239. H.F. Rios, Z. Chen, Y. Xlie, L.F. Bonewald, S. Conway, and J.Q. Feng, Early Onset Periodontitis and Enamel Defects in Mice lacking Periostin, IADR/AADR/CADR, Baltimore, Maryland, March 9-12, 2005.
240. C. Barragan-Adjemian, V. Dusevich, M. Dallas, D. Eick, D. Nicolella, and L.F. Bonewald, #2722, Role of the E11 Antigen in the Function of Osteoid-Osteocytes, IADR/AADR/CADR, Baltimore, Maryland, March 9-12, 2005.
241. P. A. Veno, D. P. Nicolella, P. Sivakumar, I. Kalajzic, D. W. Rowe, L. F. Bonewald, S. E. Harris, S. L. Dallas, Live Imaging of Osteocytes within Their Lacunae Reveals Cell Body and Dendrite Motions, 28th ASBMR Annual Meeting, Philadelphia, Pennsylvania, September 15-19, 2006.
242. S. Xiao, S. Q. Zhang, J. Mahlios, G. Zhou, B. S. Magenheimer, J. P. Calvet, D. Y. Guo, S. L. Dallas, L. F. Bonewald, L. D. Quarles, Primary Cilia and Polycystin-1 Mechanosensing Mechanisms Are Present in Osteoblasts/Osteocytes and Coupled to Runx2, 28th ASBMR Annual Meeting, Philadelphia, Pennsylvania, September 15-19, 2006.

243. D. Guo, A. Keightley, L. Barragan, J. Zhao, J. Guthrie, L. Bonewald, Identification of Proteins Involved in Cytoskeletal Rearrangement, Anti-hypoxia, and Membrane Channels Enriched in Osteocytes over Osteoblasts, 28th ASBMR Annual Meeting, Philadelphia, Pennsylvania, September 15-19, 2006.
244. Y. Lu, K. E. White, F. Rauch, X. Yu, B. Yuan, Y. Xie, S. I. Davis, S. Zhang, M. K. Drezner, L. Bonewald, J. Q. Feng, L. M. Ward, Discovery of DMP1 Mutations in Patients with Autosomal Recessive Hypophosphatemic Rickets (ARHR): Identity with the Dmp1-Null Mouse Phenotype, 28th ASBMR Annual Meeting, Philadelphia, Pennsylvania, September 15-19, 2006.
245. Y. Kitase, J. X. Jiang, M. L. Johnson, L. F. Bonewald, The Anti-Apoptotic Effects of Mechanical Strain on Osteocytes Are Mediated by PGE2 and Monocyte Chemotactic Protein-3 (MCP-3); Selective protection by MCP-3 against Glucocorticoid (GC), but Not TNF-alpha Induced Apoptosis, 28th ASBMR Annual Meeting, 28th ASBMR Annual Meeting, September 15-19, 2006.
246. A. J. Siller-Jackson, S. Burra, S. Gu, S. E. Harris, L. F. Bonewald, E. Sprague, J. X. Jiang, The Role of $\alpha 5$ Integrin as a Mechanosensor in the Regulation of Connexin 43 Hemichannel Release of Prostaglandin in Response to Mechanical Stress, 28th ASBMR Annual Meeting, Philadelphia, Pennsylvania, September 15-19, 2006.
247. S. Liu, Y. Bo, Y. Xie, J. Zhou, L. Bonewald, L. D. Quarles, J. Q. Feng, Elevated Levels of Fgf23 in Dentin Matrix Protein 1 (Dmp1) Null Mice Potentially Explain Phenotypic Similarities to Hyp Mice, 28th ASBMR Annual Meeting, Philadelphia, Pennsylvania, September 15-19, 2006.
248. C. A. O'Brien, Q. Fu, L. Mommsen, V. Dusevich, L. Bonewald, S. C. Manolagas, R. L. Jilka, Osteoblasts Are Not the Source of RANKL and OPG in Bone but Are Required for Maintenance of Osteoclast Function, 28th ASBMR Annual Meeting, Philadelphia, Pennsylvania, September 15-19, 2006.
249. S. E. Harris, W. Yang, M. A. Harris, J. Gluhak-Heinrich, L. F. Bonewald, D. W. Rowe, I. Kalajic, Osteocyte Gene Expression Signatures Indicate that Neural, Muscle and Cytoskeletal Genes as well as Wnt Signaling Represent Novel Pathways for Osteocyte Function, 28th ASBMR Annual Meeting, Philadelphia, Pennsylvania, September 15-19, 2006.
250. S. A. Schwartz, P. A. Veno, J. Zhao, L. F. Bonewald, S. L. Dallas, Characterizing Breast Tumor Metastasis to Bone by Tissue Profiling Mass Spectrometry, 28th ASBMR Annual Meeting, Philadelphia, Pennsylvania, September 15-19, 2006.
251. D. Pacicca, S. Klein, C. deRoode, L. Bonewald, Creation and Development of a Mouse Model of Distraction Osteogenesis: Localization of Hypoxia within the Distraction Zone, 28th ASBMR Annual Meeting, Philadelphia, Pennsylvania, September 15-19, 2006.
252. A. R. Bonivitch, D. M. Moravits, L. F. Bonewald, D. P. Nicolella, Alterations in the

Osteocyte Microenvironment Affect the Perilacunar and Canalicular Tissue Strain, 28th ASBMR Annual Meeting, Philadelphia, Pennsylvania, September 15-19, 2006.

- 253. S. P. Kotha, B. Kavukcuoglu, A. Mann, N. Guzelsu, L. Bonewald, Repair of Bone Material Properties in Damaged Bone at Sites Without Modeling or Remodeling, 28th ASBMR Annual Meeting, Philadelphia, Pennsylvania, September 15-19, 2006.
- 254. H.F. Rios, Z. Chen, V. Dusevich, L.F. Bonewald, S. Conway, and J.Q. Feng, Periostin Is Essential for Periodontium Integrity under Mechanical Stress, 2006 AADR and ADEA Annual Meeting, Orlando, Florida, March 8-11, 2006.
- 255. C. Barragan-Adjemian, M. Dallas, D. Guo, J. Rosser, and L. Bonewald, Dendrite Elongation due to Shear-stress is blocked by E11/gp38 siRNA, AADR and ADEA Annual Meeting, Orlando, Florida, March 8-11, 2006.

85th IADR - March 21-24, 2007 - New Orleans, Louisiana

- 256. Keynote Address: The Multifunctional Osteocyte: Orchestrator of Bone Remodeling
L. F. Bonewald, University of Missouri -Kansas City, USA
- 257. Characterization of Alveolar Bone Properties using Advanced Imaging Modalities
V. CASTRO, L. Bonewald, K. Williams, R. Massoth, S. Majum. D. AR, M.P. Walker, and D. Eick
- 258. Localization of E11/gp38, Osteocyte-Marker, in Odontoblasts and Mineralizing Odontoblast Cell-lines T.M. Beauchamp, C. Barragan-Adjemian, A. Pollard, and L. Bonewald
- 259. Strain Magnitude Dependent Activation of the WNT/b-catenin pathway in osteocytes
J. Reichenberger, L. Bonewald, M. Johnson, and S. Kotha
- 260. Osteocytes in Motion Within their Lacunae S.L. Dallas, P.A. Veno, P. Sivakumar, I. Kalajzic, D.W. Rowe, S.E. Harris, L.F. Bonewald, and D.P. Nicolella
TGF-beta Controls Periostin Response to Mechanical Load in PDL Fibroblasts
H.F. Rios, D. Ma, L.F. Bonewald, S.J. Conway, and J.Q. Feng
- 261. Targeted Deletion of DMP1 in Odontoblasts and Osteocytes
B. Jiang, Y. Lu, D. Guo, L.F. Bonewald, S.E. Harris, and J.Q. Feng
- 262. Identification of Osteocyte Specific Antigens
J.A. Stone, D. Guo, and L.F. Bonewald
- 263. Key Site Mutations Block Cleavage and Glycosylation of Murine DMP1
T. Peng, B. Huang, Y. Lu, L.F. Bonewald, W.T. Butler, J. Feng, and C. Qin
- 264. Detection of Full-length DMP1 in Rat Dentin Matrix B. Huang, T. Peng, D. Qin, L.F. Bonewald, W.T. Butler, and C. Qin

265. Mineralization Potential of Silorane and BISGMA/TEGDMA Resins J.D. Eick, C. Barragan-Adjemian, and L.F. Bonewald

37th International Sun Valley Workshop on Skeletal Tissue Biology
August 5 - 8, 2007 - Sun Valley, Idaho

267. Characterization of the Osteocyte Lacuno-canalicular system in Paget's Patients: Osteocyte Canaliculi Connect across Reversal Lines in both Normal and Pagetic Bone Shilpa Kelkar, Mark Dallas, Robert S. Weinstein, Lynda F. Bonewald

29th ASBMR - American Society for Bone and Mineral Research
September 16 – 19, 2007 - Honolulu, Hawaii

268. The Protective Effects of Mechanical Strain on Osteocyte Viability Is Mediated by the Effects of Prostaglandin on the cAMP/PKA and the beta-Catenin Pathways Y. Kitase, M. L. Johnson, L. F. Bonewald. ASBMR 29th Annual Meeting: Abstract No. M237.
269. Targeted Deletion of E11/gp38 in Osteocytes Results in Increased Skeletal Size and Bone Mineral Density D. Guo, Y. Mishina, J. Feng, M. Ray, G. Scott, M. Harris, L. Bonewald. ASBMR 29th Annual Meeting: Abstract No. 1043.
270. Dynamic Imaging of Fluorescently Tagged Osteoblast and Osteocyte Populations Integrates Mineralization Dynamics with Osteoblast to Osteocyte Transition S. L. Dallas, P. A. Veno, L. F. Bonewald, D. W. Rowe, I. Kalajzic. ASBMR 29th Annual Meeting: Abstract No. 1044.
271. Dynamic Imaging in Living Calvaria Reveals the Motile Properties of Osteoblasts and Osteocytes and suggests Heterogeneity of Osteoblasts in Bone P. A. Veno, D. P. Nicoletta, I. Kalajzic, D. W. Rowe, L. F. Bonewald, S. L. Dallas. ASBMR 29th Annual Meeting: Abstract No. 1045
272. Progression of Osteonecrosis of the Jaw in Breast Cancer Patients even with Discontinuation of Intravenous Bisphosphonate Therapy C. Barragan-Adjemian, L. Lausten, M. L. Johnson, J. O. Katz, L. F. Bonewald. ASBMR 29th Annual Meeting: Abstract No. T233.
273. The 57 kDa C-terminal Fragment of Dentin Matrix Protein 1 (DMP1) Retains All Biological Activity: Osteocytic Regulation of Pi Homeostasis Through FGF23 Y. Lu, S. Liu, S. Yu, Y. Xie, J. Zhou, L. D. Quarles, L. F. Bonewald, J. Q. Feng. ASBMR 29th Annual Meeting: Abstract No. 1296
274. Fluid Flow Shear Stress and Prostaglandin E2 Activates beta-catenin Signaling in MLO-Y4 Osteocytic and 2T3 Osteoblastic Cells. M. A. Kamel, Y. Kitase, N. A. Kim-Weroha, B. Holladay, S. Kotha, L. F. Bonewald, M. L. Johnson. ASBMR 29th Annual Meeting: Abstract No. W053

275. Alpha 5 Integrin Association with Cx43 Regulates the Function of Osteocyte Hemichannels in Response to Shear Stress. A. J. Siller-Jackson, S. Burra, S. E. Harris, L. F. Bonewald, E. Sprague, J. X. Jiang. ASBMR 29th Annual Meeting: Abstract No. T504.
276. Fluid Flow Shear Stress Promotes Intracellular Assembly and Formation of Connexin 43-forming Channels in Osteocytes. S. Burra, A. J. Siller-Jackson, L. F. Bonewald, E. Sprague, J. X. Jiang. ASBMR 29th Annual Meeting: Abstract No. M520.
277. Osteocyte Specific DMP1 and MEPE Expression after Mechanical Stimulation in the Mouse Ulnae Loading Model: Correlation to Strain Fields, Dynamic Bone Formation, and Potential Role in Bone Mineral Quality. S. E. Harris, J. Gluhak-Heinrich, M. A. Harris, W. Yang, L. F. Bonewald, D. Riha, D. P. Nicolella, P. S. N. Rowe, A. G. Robling, C. H. Turner. ASBMR 29th Annual Meeting: Abstract No. W050.
278. Microstructural Variation in the Bone Matrix and Cell Attachments Modify Strain Amplification on the Osteocyte A. R. Bonivitch, L. F. Bonewald, D. P. Nicolella. ASBMR 29th Annual Meeting: Abstract No. M066.

9th ICCMBT-International Conference on the Chemistry and Biology of Mineralized Tissues - November 4-8, 2007, Austin, Texas

Oral Presentations:

279. Imaging of Mineralization Dynamics and its Integration with Osteoblast to Osteocyte Transition Sarah. L. Dallas, Patricia A. Veno, Jennifer L. Rosser, David W. Rowe, Ivo Kalajzic, and Lynda F. Bonewald
280. Clinical cases Bisphosphonate Associated Osteonecrosis of the Jaw in the Metastatic Cancer Population; Diagnosis with Cone Beam Computerized Tomography (CBCT) Cielo Barragan-Adjemian, Leonard L. Lausten, Mark L. Johnson, Jerald O. Katz, and Lynda F. Bonewald
281. The DMP1 C-terminal Fragment Recapitulates All Functions of Full Length DMP1 in Odontogenesis and Osteogenesis In Vivo
Yongbo Lu, Y. Xie, S. Yu, Chunlin Qin, Lynda F. Bonewald, and Jian Q. Feng
282. The NH₂-terminal and COOH-terminal Fragments of Dentin Matrix Protein 1 (DMP1) are Localized Differently in Bone or Dentin
Izabela Maciejewska, Disheng Qin, Bingzhen Huang, Lynda Bonewald, William T Butler and Chunlin Qin
283. Blocking of Proteolytic Processing and Deletion of Glycosaminoglycan Side Chain of Mouse Dmp1 by Substituting Critical Amino Acid Residues
Tao Peng, Bingzhen Huang, Yongbo Lu, Lynda F. Bonewald, William T. Butler, Jian Feng, Chunlin Qin

Poster

284. Identification of Full-length Dentin Matrix Protein 1 in the Extracellular Matrix of Rat Dentin and Bone
285. Bingzhen Huang, Tao Peng, Disheng Qin, Izabela Maciejewska, Yao Sun, Lynda Bonewald, William T Butler, Jian Feng and Chunlin Qin

86th IADR – July 1- 8, 2008, Toronto, Ontario

286. Welch GR, Poliard A, Bonewald LF, Barragan-Adjemian C (2008). Odontoblasts express E11/gp38 and respond to ffss with increased-dendrite elongation. IADR/CADR 86th General Session SI C(87): Abstract No. 0164.
287. Ye L, Ko S, Zhang S, Dallas M, Bonewald LF, Feng JQ (2008). Dmp1 null mice display early onset periodontal defects. IADR/CADR 86th General Session S.I. B(87): Abstract No. 0093.
288. Lausten L, Kumar V, Welch GR, Johnson ML, Bonewald LF (2008). Subclinical necrotic-bodies detected by cbct in IV bisphosphonate-treated cancer patients. IADR/CADR 86th General Session S.I. B(87): Abstract No. 2775.

30th ASBMR- American Society for Bone and Mineral Research September 12-16, 2008, Montréal, Québec, Canada

289. Dean AK, Yang W, Harris MA, Gluhak-Heinrich J, Bonewald LF, Rowes DW, Kalajzic I, Ruan J, Harris SE (2008). Cis-regulatory motifs and computationally-derived transcriptional networks predict dynamic motions for osteocytes. ASBMR 30th Annual Meeting: Abstract No. M103.
290. Xia X, Harris SE, Bonewald LF, Sprague E, Jiang JX (2008). Transcriptional regulation of connexin 43 by catenin, a pathway activated by PGE2-PI3K-GSK-3 in mechanically loaded osteocytes. ASBMR 30th Annual Meeting: Abstract No. 1042.
291. Jilka RL, O'Brien AC, Ali AA, Roberson P, DeLoose A, Dusevich V, Bonewald LF, Weinstein RS, Manolagas SC (2008). Post-mitotic preosteoblasts are the targets of the anabolic actions of intermittent PTH on periosteal bone. ASBMR 30th Annual Meeting: Abstract No. 1157.
292. Ma D, Yu S, Zhang R, Yuan B, Xie Y, Drezner M, Dallas S, Bonewald LF, Feng J (2008). Mechanical unloading partially rescues hypophosphatemic rickets in dmp1-null mice. ASBMR 30th Annual Meeting: Abstract No. 1162.
293. Dallas S, Lu Y, Rosser JL, Rowe DW, Kalajzic I, Bonewald LF, Veno PA (2008). Imaging of mineralization of kinetics suggests that the transition for osteoblast to

osteocyte initiates prior to mineral deposition. ASBMR 30th Annual Meeting: Abstract No. F062.

- 294. Bonivitch AR, Bonewald LF, Ling J, Jiang JX, Nicolella DP (2008). Direct correlation of osteocyte deformation with calcium influx in response to fluid flow shear stress. ASBMR 30th Annual Meeting: Abstract No. SA057.
- 295. Burra S, Siller-Jackson AJ, Harris MA, Harris SE, Weber G, DeSimone D, Bonewald LF, Sprague E, Schwartz MA, Jiang JX (2008). Mechanical perturbation of integrin $\alpha 5$ with fibronectin opens connexin 43-hemichannels in osteocytes - a mechanism for release of small signaling molecules in response to loading. ASBMR 30th Annual Meeting: Abstract No. SA060.
- 296. Pacicca D, Zaidi A, Shah A, Bonewald LF (2008). The early osteocyte marker, E11/gp38 is highly elevated in new bone formed in response to distraction as compared to existing bone. ASBMR 30th Annual Meeting: Abstract No. SA136.
- 297. Qing H, Ardeshirpour L, Dusevich V, Dallas M, Wysolmerski JJ, Bonewald LF (2008). Osteocytic perilacunar remodeling as a significant source of calcium during lactation. ASBMR 30th Annual Meeting: Abstract No. M110.

31st ASBMR-American Society for Bone and Mineral Research
September 11-15, 2009 in Denver, Colorado

- 298. Zhou-Sheng Xiao, Mark Dallas, Shiqin Zhang, Daniel Nicolella, Nan He, Ni Qiu, Li Cao, Mark Johnson, Lynda Bonewald, L. Darryl Quarles. (2009). Conditional Deletion and/or Disruption of Pkd1 in Osteocytes Results in a Significant Reduction in Anabolic Response to Mechanical Loading. ASBMR 31th Annual Meeting: Abstract No. 1042.
- 299. Sirisha Burra¹, Nidhi Batra, Xuechun Xia, Lynda Bonewald, Eugene Sprague, Paul Lampe, Jean Jiang. AKT and MAPK Phosphorylation Regulates the Opening/closing of Connexin 43 Hemichannels in Osteocytes in Response to Shear Stress. ASBMR 31th Annual Meeting: Abstract No. FR0047
- 300. Dayong Guo¹, Hong Zhao, Yuji Mishina, Jerry Feng, Stephen Harris, Lynda Bonewald. Mice with Targeted Deletion of E11/gp38 in Late Osteoblasts Have Reduced Canaliculi per Osteocyte Which May Be Responsible for The Enhanced Trabecular Bone Volume. ASBMR 31th Annual Meeting: Abstract No. FR0268
- 301. Stacey Woo, Jennifer Rosser, Hong Zhao, Sarah Dallas, Patricia Veno, Ivo Kalajzic, Lynda Bonewald. Establishment of an Immortomouse-derived Osteoblast Cell Line that Expresses Dmp1-GFP upon Differentiation to Osteocytes. 31th Annual Meeting: Abstract No. SA0271
- 302. Xuechun Xia¹, Jelica Gluhak-Heinrich, Wei Yao, Nancy Lane, Lynda Bonewald, Sondip Biswas, Woo-Kuen Lo, Jean Jiang. Autophagy in Osteocytes is a Major Protective Mechanism against Glucocorticoid Induced Cell Death. 31th Annual Meeting: Abstract No. SA0338

303. Stephen Harris, Marie A. Harris, Yong Cui, Wuchen Yang, Lynda F Bonewald, Paola Divieti Pajevic, Jian Feng, Ivo Kalajzic. PTH Regulation of Osteocyte Function: Comparison of Gene Expression Patterns in Wild-type and Osteocyte Specific Conditional Knock-out of Mef2c after Treatment with PTH. 31th Annual Meeting: Abstract No. SU0262
304. Ryan Potter, Michael Miller, Don Moravits, Lorena Havill, Lynda Bonewald, Jery Nyman, Daniel Nicolella. Raman Spectroscopic Characterization of Bone Tissue Material Properties around the Osteocyte Lacuna: Effect of Aging. 31th Annual Meeting: Abstract No. SU0266
305. Vania Castro, Lynda Bonewald, Jerald Katz, Mary Walker, David Eick. Characterization of Bone Properties Using Advanced Imaging Modalities. 31th Annual Meeting: Abstract No. MO0022
306. Yunlong Kang, Rong Zhang, Yongbo Lu, Yixia Xie, Paul Dechow, Baozhi Yuan, Marc Drezner, Lynda Bonewald, Jian Feng. Crossing Talk between Pi homeostasis and Bone. 31th Annual Meeting: Abstract No. MO0092
307. Suzan Kamel, Patricia Veno, Jean Jiang, Lynda Bonewald, Sarah Dallas. Comprehensive Imaging of Osteocytes and their Dendrites in Situ Using Widefield Fluorescence, Confocal Microscopy and Time Lapse Imaging. 31th Annual Meeting: Abstract No. MO0251
308. Hai Qing, Laleh Ardeshirpour, Vladimir Dusevich, John Wysolmerski, Lynda Bonewald. Osteocyte Perilacunar Remodeling Is Regulated Hormonally, but Not by Mechanical Unloading. 31th Annual Meeting: Abstract No. MO0255
309. Amber Rath, Matthew Stern, Lynda Bonewald, Mark Van Dyke, Daniel Nicolella. Substrate Stretching Induces an Increase in Intracellular Calcium but Not Intracellular Nitric Oxide in Osteocytes. 31th Annual Meeting: Abstract No. MO0256

32nd ASBMR-American Society for Bone and Mineral Research
October 15-19, 2010, Toronto, Ontario, Canada

310. Keertik Fulzele*¹, Kevin Barry², Sutada Lotinun³, Roland Baron⁴, Lynda Bonewald⁵, Jian Feng⁶, Min Chen⁷, Lee Weinstein⁸, Rajaram Manoharan⁹, Mary Bouxsein⁹, Paola Divieti Pajevic¹⁰. Heterozygous Disruption of Gsa in Osteocytes Decreases Peripheral Fat without Affecting Bone Mass. 32nd Annual Meeting: Abstract No. 1001
311. Jean Jiang*¹, Sirisha Burra², Stephen Harris¹, Hong Zhao³, Mark Johnson⁴, Lynda Bonewald⁵. Inhibiting Cx43 Gap Junction Function in Osteocytes, but not Cx43 Hemichannel Function Results in Defects in Skeletal Structure and Bone Mass. 32nd Annual Meeting: Abstract No. 1037
312. Patricia Veno¹, Yongbo Lu², Suzan Kamel¹, Jian Feng³, Lynda F. Bonewald⁴, Sarah Dallas*⁴. A Membrane-Targeted GFP Selectively Expressed in Osteocytes Reveals

- Cell and Membrane Dynamics in Living Osteocytes. 32nd Annual Meeting: Abstract No. 1040
313. Hai Qing*¹, Paola Divieti Pajevic², Kevin Barry³, Vladimir Dusevich⁴, John Wysolmerski⁵, Lynda Bonewald⁶. PTHR1 in Osteocytes Plays a Major role in Perilacunar Remodeling through the Activation of "Osteoclastic" Genes in Osteocytes. 32nd Annual Meeting: Abstract No. 1082
 314. Michael Wacker*¹, Chris Elmore¹, Chad Touchberry¹, Leticia Brotto², Neerupma Silswal¹, Nikhil Parelkar¹, Hong Zhao³, Todd Hall², Jon Andresen⁴, Jian Feng⁵, Marco Brotto², Lynda Bonewald³. Dentin Matrix Protein 1 Null Mice, a Model of Human Autosomal Recessive Hypophosphatemic Rickets, Exhibit Decreases in Cardiac, Skeletal, and Vascular Smooth Muscle Function. 32nd Annual Meeting: Abstract No. 1157
 315. Nuria Lara*¹, Todd Hall¹, Leticia Brotto¹, Joedd Biggs¹, Cheng, Lin Mo¹, Sandra Romero-Suarez¹, Marco Brotto¹, Lynda Bonewald¹, Mark Johnson². Muscle Derived Factors Influence the MLO-Y4 Osteocyte Response to Shear Stress. 32nd Annual Meeting: Abstract No. FR0186
 316. Nuria Lara¹, Todd Hall*¹, Chad Touchberry¹, Jon Andresen¹, Marco Brotto¹, Mark Johnson², Michael Wacker³, Christopher Elmore¹, Sandra Romero - Suarez¹, Cheng Lin Mo⁴, Lynda Bonewald¹, Neerupma Silswal¹. Bone-Muscle Crosstalk is Demonstrated by Morphological and Functional Changes in Skeletal and Cardiac Muscle Cells in Response to Factors Produced by MLO-Y4 Osteocytes. 32nd Annual Meeting: Abstract No. FR0282
 317. Stephen Harris*¹, Marie Harris¹, Jelica Gluhak-Heinrich¹, Wuchen Yang¹, Yong Cui², Ryan S Potter³, Lynda Bonewald⁴, Daniel Nicolella³. Use of a Sost-GFP Mouse Model to Determine the Role of the AKT-GSK3b in Osteocyte Function and to Map Local Strain Fields around Osteocytes with Loading. 32nd Annual Meeting: Abstract No. FR0287
 318. Stacey Woo, Lianxiang Bi¹, Mark Johnson, Lynda Bonewald¹. Late Osteoblastic/Osteocytic Cell Line IDG-SW3 Expresses Dmp1-GFP, SOST and FGF23 in vitro and Promotes New Bone Formation in vivo. 32nd Annual Meeting: Abstract No. FR0289
 319. Sirisha Burra¹, Xuechun Xia², Paul Lampe³, Lynda Bonewald⁴, Eugene Sprague², Jean Jiang*⁵. Prostaglandin E2 Released by Osteocytes after Sustained Mechanical Loading Activates ERK Signaling that Directly Phosphates Connexin 43 Leading to the Closure of Hemichannels. 32nd Annual Meeting: Abstract No. SU0053
 320. Regulation of Osteocyte Proliferation and Sclerostin Expression by PTHrP. Leonard Deftos*¹, Lynda Bonewald², Su Tu¹, Douglas Burton¹. 32nd Annual Meeting: Abstract No. MO0115

321. Wei Yao*¹, Junjing Li², Mohammad Shahnazari², L. Darryl Quarles³, Weiwei Dai², Min Guan⁴, Lynda Bonewald⁵, Nancy Lane¹. Time-dependent Effects of Glucocorticoids on Osteocyte Autophagy In Vivo. 32nd Annual Meeting: Abstract No. MO0472

33rd ASBMR-American Society for Bone and Mineral Research
September 16 - 20, 2011, San Diego, California

322. Osteocytes Regulate Bone Microenvironment Through Gsa Signaling to Support Normal Hematopoiesis. Keertik Fulzele*¹, Daniela Krause², Kevin Barry³, Sutada Lotinun⁴, Roland Baron⁵, Lynda Bonewald⁶, Jian Feng⁷, Min Chen⁸, Lee Weinstein⁹, David Scadden¹⁰, Paola Divieti Pajevic¹¹. 33rd Annual Meeting: Abstract No. 1037
323. Conditional Knockout of IGF-I in Osteocytes Surprisingly Accelerates Fracture Repair. Matilda Sheng*¹, Xiaodong Zhou¹, Kin-Hing William Lau², Lynda Bonewald³, David Baylink¹. 33rd Annual Meeting: Abstract No. 1038
324. Beta-catenin Haploinsufficiency in Osteocytes Abolishes the Osteogenic Effect of Mechanical Loading In Vivo. Behzad Javaheri*¹, Mark Dallas¹, Hong Zhao¹, Lynda Bonewald¹, Mark Johnson². 33rd Annual Meeting: Abstract No. 1068
325. Osteocyte-derived IGF-I Functions as a Portion of the Circuitry For Normal Loading Activation Response in Osteoblasts: Data From the Osteocyte IGF-I Knockout Mouse. Matilda Sheng*¹, Kin-Hing William Lau², Xiaodong Zhou¹, Lynda Bonewald³, David Baylink¹. 33rd Annual Meeting: Abstract No. 1071
326. The Wnt/beta-catenin Activating Factor, Wnt3a, stimulates Skeletal Muscle Myogenesis. Sandra Romero-Suarez*¹, ChengLin Mo², Nuria Lara³, Katharina Jaehn³, Mark Johnson⁴, Lynda Bonewald³, Marco Brotto³. 33rd Annual Meeting: Abstract No. FR0005
327. Mechanical Loading Activates Integrin alpha 5 beta 1 Leading to the Opening of Connexin 43 Hemichannels in Osteocytes - a Mechanism for Extracellular Release of Small Bone Anabolic Factors. Nidhi Batra¹, Sirisha Burra², Sumin Gu², Xuechun Xia³, Lynda Bonewald⁴, Eugene Sprague², Martin Schwartz⁵, Jean Jiang*⁶. 33rd Annual Meeting: Abstract No. FR0073
328. Vitamin D Signaling in Osteoblasts/Osteocytes Is Required to Shift Calcium from Bone to Serum. Liesbet Lieben*¹, Karen Moermans¹, Lynda Bonewald², Jian Feng³, Geert Carmeliet¹. 33rd Annual Meeting: Abstract No. FR0235
329. Estrogen Receptor α (ER α) Expression in Osteocytes is Necessary to Maintain Normal Bone Mineral Density (BMD) and Reduce Bone Loss due to Unloading. Yuuki Imai¹, Lynda Bonewald², Shino Kondoh*¹, Shigeaki Kato¹. 33rd Annual Meeting: Abstract No. FR0310
330. Evidence that Osteocytes Elaborate Endocrine Regulation of Internal Organs Size: Data From the Osteocytes IGF-I Conditional Knockout Mice. Xiaodong Zhou*¹, Kin-

Hing William Lau², Lynda Bonewald³, David Baylink¹, Matilda Sheng¹. 33nd Annual Meeting: Abstract No. FR0319

331. Regulation of Osteocyte Apoptosis and ECM by PTHrP. Leonard Deftos^{*1}, Cheryl Chalberg², Su Tu², Douglas Burton², Lynda Bonewald³. 33nd Annual Meeting: Abstract No. SA0313
332. A Muscle Derived Soluble Factor Activates PI3K/b-catenin Signaling in Osteocytes. Nuria Lara^{*1}, Katharina Jaehn¹, Sandra Romero-Suarez¹, Chenlin Mo¹, Lynda Bonewald¹, Marco Brotto¹, Mark Johnson². 33nd Annual Meeting: Abstract No. SU0001
333. Role of SKI-1 Protease in Osteoblast/Osteocyte Formation and Maintenance of Bone and Body Mass. Jeffrey Gorski^{*1}, Nichole T. Huffman¹, Annita Achilleos², Paul A. Trainor², Nabil G. Seidah³, Clifford Rosen⁴, Lynda Bonewald¹. 33nd Annual Meeting: Abstract No. SU0005
334. Load responsive Genes and Inflammation-Associated Genes are elevated in Dmp1 null Osteocytes while Genes associated with Bone Formation are Suppressed. Stephen Harris^{*1}, Marie Harris¹, Yong Cui², Lynda Bonewald³, Jian Feng⁴, Jelica Gluhak-Heinrich¹. 33nd Annual Meeting: Abstract No. SU0312
335. Dose-dependent Effects of Glucocorticoid on Anti-Oxidation, Autophagy and Apoptosis. Junjing Jia^{*1}, Wei Yao¹, Min Guan¹, Weiwei Dai², Jean Jiang³, Lynda Bonewald⁴, Nancy Lane¹. 33nd Annual Meeting: Abstract No. SU0317
336. Preliminary Evidence for Acute Post-Burn Bone Resorption in Sheep. Gordon Klein^{*1}, Minyi Hu², Liangjun Lin², Yi-Xian Qin², Cherry Croft³, Larry R Sumpter³, X Zhou³, H Qing⁴, Lynda Bonewald⁵. 33nd Annual Meeting: Abstract No. SU0393
337. Skeletal Muscle Cells Secrete Factor(s) Protecting Bone Cells from Glucocorticoid Induced Cell Death. Katharina Jaehn^{*1}, Leticia Brotto¹, Nuria Lara¹, Chenglin Mo¹, Mark Johnson², Marco Brotto¹, Lynda Bonewald¹. 33nd Annual Meeting: Abstract No. MO0005
338. Fibroblast Growth Factor 23 (FGF23) Alters Gene Expression of Isolated Cardiac Ventricular Muscle. Michael Wacker^{*1}, Vladimir Tchikrizov², Jaime Mannix², Chad Touchberry², Jason Stubbs³, Lynda Bonewald². 33nd Annual Meeting: Abstract No. MO0118
339. The Isolation and Culture of Primary Osteocytes from the Long Bones of Skeletally Mature and Aged Mice. Amber Stern^{*1}, Matthew Stern², Mark Van Dyke³, Lynda Bonewald¹. 33nd Annual Meeting: Abstract No. MO0313
340. Skeletal Unloading Changes Phosphate (Pi) Homeostasis. Rong Zhang^{*1}, X Han², Baozhi Yuan³, Marc Drezner⁴, Lynda Bonewald⁵, Jian Feng⁶. 33nd Annual Meeting: Abstract No. MO0319

41st American Association for Dental Research (AADR)
March 21- 24, 2012, Tampa, Florida

268. Brown Z, Bi LX, Day D, Rahaman M, Bonewald LF. Evaluating Bone Regeneration and Angiogenesis in 1393B3 Bioactive Glass Scaffolds.

34th ASBMR - American Society for Bone and Mineral Research
October 12 - 15, 2012, Minneapolis, Minnesota

269. Inactivation of SKI-1 in Osteocytes Leads to Obesity in Adult Mice and Suggests a New Bone to Brain Endocrine Pathway Regulating Body Mass. Jeffrey Gorski*¹, Nichole T. Huffman², Anne C. Breggia³, Clifford Rosen³, Sridar Chittur⁴, Amber Stern¹, Mark Dallas², Nabil G. Seidah⁵, Lynda Bonewald¹. ASBMR 34th Annual Meeting: Abstract No. 1182
270. Proton Generation by Osteoblasts/Osteocytes in Response to PTH/PTHrP. Katharina Jaehn*¹, Matt Prideaux², Hong Zhao², Sarah Dallas¹, Lynda Bonewald¹. ASBMR 34th Annual Meeting: Abstract No. FR0119
271. Osteocyte-Produced Microvesicles: a Potential Mechanism for Communication With Osteoblasts and Osteoclasts. Pat Veno, Matt Prideaux, Vladimir Dusevich, Lynda Bonewald, Sarah Dallas*. ASBMR 34th Annual Meeting: Abstract No. FR0273
272. Acute Exposure to Fibroblast Growth Factor 23 Increases Cardiac Contractility. Michael Wacker*¹, Chad Touchberry¹, Troy Green², Vladimir Tchikrizov³, Lori Wetmore², Lynda Bonewald⁴. ASBMR 34th Annual Meeting: Abstract No. SA0111
273. Muscle Derived Factor(s) Enhance the Activation of the PI3K/Akt Pathway in the Osteocyte in Response to Fluid Flow. Nuria Lara*¹, Leticia Brotto², Marco Brotto¹, Lynda Bonewald¹, Mark Johnson³. ASBMR 34th Annual Meeting: Abstract No. SA0187
274. Wnt/ Ca²⁺ Signaling Pathway Takes Shape in Muscle-bone Crosstalk. Sandra Romero-Suarez*¹, Cheng Lin Mo¹, Mark L Johnson², Lynda Bonewald³, Marco Brotto³. 1. ASBMR 34th Annual Meeting: Abstract No. SA0193
275. Changes in Gene Expression and Transcription Factor Binding Patterns in Response to 1,25-Dihydroxyvitamin D₃ and PTH During IDG-SW3 Osteocyte Progression. Hillary St John*¹, Kathleen Bishop², Alex Carlson², Nancy Benkusky², Mark Meyer², Lynda Bonewald³, J. Pike². ASBMR 34th Annual Meeting: Abstract No. SA0270
276. Sclerostin Stimulation of Osteocytic Osteolysis Involves Expression of Carbonic Anhydrase II. Masakazu Kogawa*¹, Asiri Wijenayaka¹, Renee Ormsby¹, Lynda Bonewald², David Findlay³, Gerald Atkins³. ASBMR 34th Annual Meeting: Abstract No. SA0274

277. Wnt Canonical and Non-canonical Signaling Pathways are Involved in Muscle-Bone Crosstalk. Sandra Romero-Suarez*¹, Mark L Johnson², Lynda Bonewald³, Marco Brotto³. ASBMR 34th Annual Meeting: Abstract No. SU0193
278. Tracking Transcriptomic and Transcription Factor Cistromic Changes During Osteoblast to Osteocyte Differentiation. Kathleen Bishop*¹, Hillary St. John², Nancy Benkusky¹, Mark Meyer¹, Lynda Bonewald³, J. Pike¹. ASBMR 34th Annual Meeting: Abstract No. SU0274
279. Dysfunctional Osteocytes Increase RANKL and Promote Cortical Pore Formation in Their Vicinity: a Mechanistic Explanation for the Development of Cortical Porosity with Age. Robert Jilka*¹, Annick DeLoose², Leslie Climer², Lynda Bonewald³, Robert Weinstein¹, Charles O'Brien¹, Stavros Manolagas¹. ASBMR 34th Annual Meeting: Abstract No. MO0004
280. Phosphate Sensing in Osteocytes: Extracellular Phosphate Induces FGF23 Expression in IDG-SW3 Osteocyte-Like Cells. Nobuaki Ito*¹, David Findlay², Renee Ormsby², Paul Anderson³, Lynda Bonewald⁴, Gerald Atkins². ASBMR 34th Annual Meeting: Abstract No. MU0111
281. A Muscle Specific Factor Increases Survival of Dexamethasone-Stressed Osteocytes. Katharina Jaehn*¹, Leticia Brotto¹, Nuria Lara¹, Chenglin Mo², William Gutheil³, Mark Johnson⁴, Marco Brotto¹, Lynda Bonewald¹. ASBMR 34th Annual Meeting: Abstract No. MO0176
282. PTH Induces Osteocyte Dedifferentiation, Changes in Morphology and Reverts Embedding Osteocytes to a More Motile Phenotype. Matt Prideaux*¹, Erica Perryn², Sarah Dallas³, Lynda Bonewald³. ASBMR 34th Annual Meeting: Abstract No. MU0218

35th ASBMR-American Society for Bone and Mineral Research
October 4 - 7, 2013, Baltimore, Maryland

283. Potential Role of Leptin and BMP2 in Osteocyte Regulation of Muscle Mass and Function in the Adult Skeleton and With Age. Jeffrey Gorski*¹, Nichole T. Huffman¹, Leticia Brotto¹, Mark Dallas¹, Anne Breggia², Sridar V. Chittur³, Jian Huang¹, Chenglin Mo⁴, Ying Liu¹, Nabil G. Seidah⁵, Clifford Rosen², Marco Brotto¹, Lynda Bonewald¹. ASBMR 35th Annual Meeting: Abstract No. FR0186
284. Comparative Analysis of the Specificity of Available Osteoclast Lineage Cre-Drivers and Identification of Novel Osteoclast Lineage Selective Genes. Megan Weivoda*¹, Katharina Jaehn², Matt Prideaux³, Ming Ruan¹, Sundeep Khosla⁴, Lynda Bonewald⁵, Merry Jo Oursler¹. ASBMR 35th Annual Meeting: Abstract No. FR0270
285. Osteocytes release microvesicles that regulate osteoblast function. Patricia Veno*, Matt Prideaux, Vladimir Dusevich, Lynda Bonewald, Sarah Dallas. ASBMR 35th Annual Meeting: Abstract No. FR0280

286. In Vitro Bone to Muscle Cell Signaling is Negatively Affected by Aging and Common Non-steroidal Anti-inflammatory Drugs (NSAIDs). Asmaa Alsousi*¹, Marco Brotto¹, Chenglin Mo¹, Mostafa Badr¹, Lori Wetmore², Lynda Bonewald¹, Julian Vallejo¹. ASBMR 35th Annual Meeting: Abstract No. SA0001
287. Novel Silorane Bone Cements Exhibit Similar Mechanical Properties but None of the in vivo Inflammatory Effects of Commercial Bone Cement. Lianxiang Bi*¹, David Eick¹, Kathleen Kilway¹, Rachel Weiler¹, Bradley Miller¹, Thomas Schuman², Lynda Bonewald¹. ASBMR 35th Annual Meeting: Abstract No. SU0065
288. IDG-SW3 osteocyte-like cell line expresses insulin receptor as well as GLUT1 and GLUT3. Donna Pacicca*¹, Tammy Brown¹, Karen Kover¹, Lynda Bonewald². ASBMR 35th Annual Meeting: Abstract No. SU0104
289. Wnt3a Potentiates Myogenesis in C2C12 Myoblasts by Orchestrated Changes in IP3-mediated Calcium Signaling and b-catenin Activation. JianHuang*, Chenglin Mo, Sandra Romero-Suarez, Lynda Bonewald, Marco Brotto. ASBMR 35th Annual Meeting: Abstract No. SU0190
290. The Optimization and Effect of a Platinum Catalyst on the Mechanical and Handling Properties of Novel Silorane Bone Cements while maintaining Osteogenic Capacity. Kathleen Kilway*¹, Rachel Weiler¹, Lianxiang Bi¹, J. David Eick¹, Bradley Miller¹, Thomas Schuman², Lynda Bonewald¹. ASBMR 35th Annual Meeting: Abstract No. MU0054
291. FGF23 Reduces Endothelium-Dependent Vasorelaxation and Nitric Oxide Bioavailability. Neerupma Silswal*¹, Dorothy Daniel¹, Chad Touchberry¹, Lynda Bonewald², Jason Stubbs³, Jon Andresen¹, Michael Wacker¹. ASBMR 35th Annual Meeting: Abstract No. MO0114
292. Up-regulation of Osteocyte Markers by Muscle Secreted Factor(s) but Lack of any Effect on Osteoblast proliferation/differentiation. Ning Zhao*¹, Matthew Prideaux¹, Marco Brotto¹, Leticia Brotto², Lynda Bonewald¹. ASBMR 35th Annual Meeting: Abstract No. MO0185
293. From GWAS to cell-based studies in search of common pleiotropic pathways for bone-muscle crosstalk. Jian Huang*¹, Chenglin Mo¹, Yi-Hsiang Hsu², Eduardo Abreu¹, Douglas P kiel³, Lynda Bonewald¹, Marco Brotto¹, David Karasik⁴. ASBMR 35th Annual Meeting: Abstract No. MO0187
294. Autocrine role of PGE2 Signaling in Cell Cycle Regulation of C2C12 Myogenic Differentiation. Chenglin Mo*¹, Lori Wetmore², Lynda Bonewald¹, Orisa Igwe¹, Marco Brotto¹. ASBMR 35th Annual Meeting: Abstract No. MO0192
295. Sclerostin Exerts a Coordinated Pro-osteoclastogenic Effect via its Action in Osteocytes. Asiri Wijenayaka*¹, Masakazu Kogawa¹, Lynda Bonewald², David Findlay¹, Gerald Atkins¹. ASBMR 35th Annual Meeting: Abstract No. MO0285
296. FGF23 is a Naturally Phosphorylated Protein: FAM20C-mediated phosphorylation

of Ser212 in human FGF23. Iris Lindberg¹, Kevin Li^{*1}, David Clark¹, Austin Yang¹, Lynda Bonewald². ASBMR 35th Annual Meeting: Abstract No. LB-SU12

36th ASBMR-American Society for Bone and Mineral Research
September 12 - 15, 2014, Houston, Texas

297. Activation of Prostaglandin E2 EP4 signaling promotes primary myoblast proliferation via regulation of cell cycle progression and MyoD expression. Chenglin Mo^{*1}, Lori Wetmore², Julian Vallejo³, Leticia Brotto³, Lynda Bonewald⁴, Marco Brotto⁴. ASBMR 36th Annual Meeting: Abstract No. FR0192 and SA0192
298. Osteocyte Microvesicles in Cell-Cell Communication in Bone. Kun Wang^{*1}, Andrew Keightley², Patricia Veno¹, Vladimir Dusevich², LeAnn Tiede-Lewis¹, Lynda Bonewald¹, Sarah Dallas¹. ASBMR 36th Annual Meeting: Abstract No. FR0282 and SA0282
299. Induction of FGF23 expression in IDG-SW3 osteocytes by inflammatory stimuli. Nobuaki Ito¹, Asiri Wijenayaka², Matthew Prideaux³, Masakazu Kogawa⁴, Renee Ormsby², Lynda Bonewald⁵, David Findlay⁶, Gerald Atkins^{*6}. ASBMR 36th Annual Meeting: Abstract No. SA0138
300. Identification of miRNAs Involved in the Differentiation Process from Osteoblasts to Osteocytes. Laura De Ugarte Corbala^{n*1}, Nicholas H. Farina², Matt Prideaux³, Gary Stein⁴, Jane Lian⁵, Lynda Bonewald⁶. ASBMR 36th Annual Meeting: Abstract No. SA0279
301. Wnt3a potentiates myogenesis in C2C12 myoblasts through changes of signaling pathways including Wnt and NFkB. Jian Huang^{*1}, Chenglin Mo², Lynda Bonewald³, Marco Brotto³. ASBMR 36th Annual Meeting: Abstract No. SU0190
302. Dramatic effects of high and low glucose on osteocytes: A model for the effects of glucose on bone loss. Donna Pacicca^{*1}, Tammy Brown², Lynda Bonewald³. ASBMR 36th Annual Meeting: Abstract No. SU0100
303. Gender specific effects of b-catenin on trabecular bone with unloading. Delphine Maurel^{*1}, Peipei Duan², Ning Zhao³, Mark Johnson⁴, Lynda Bonewald⁵. ASBMR 36th Annual Meeting: Abstract No. SU0269
304. Connexin 43 Hemichannels are Important in Maintaining Normal Bone Structure and Osteocyte Viability. Huiyun Xu¹, Sumin Gu², Manuel Riquelme³, Sirisha Burra⁴, Danielle Callaway⁵, Hongyun Cheng², Teja Guda⁶, James Schmitz⁴, Roberto Fajardo⁷, Sherry Abboud Werner⁵, Hong Zhao⁸, Peng Shang⁹, Mark Johnson¹⁰, Lynda Bonewald¹¹, Jean Jiang^{*5}. ASBMR 36th Annual Meeting: Abstract No. MO0270
305. IDG-SW3 early osteoblasts in mineralising 3D collagen gels differentiate to osteocytes that respond to mechanical loading. Nicole Scully^{*1}, Lynda Bonewald², Sam Evans³, Deborah Mason⁴, Bronwen Evans. ASBMR 36th Annual Meeting: Abstract No. MO0272

306. Age-Related Changes in Osteocyte Connectivity and Bone Structure in a Murine Model of Aging. LeAnn Tiede-Lewis^{*1}, Yixia Xie², Vladimir Dusevich², Molly Hulbert², Mark Dallas², Lynda Bonewald¹, SarahDallas¹. ASBMR 36th Annual Meeting: Abstract No. MO0452

IADR/AADR/CADR – March 11-14, 2015, Boston, Massachusetts

307. Keynote Address: Mechanisms Controlling the Development of Skeletal and Dental Tissues. L. F. Bonewald, University of Missouri – Kansas City, USA, 2015 R/AADR/CADR General Session, #0414
308. Shear Stress Induces an Anabolic Profile in Cementocytes. Peipei Duan^{1,3*}, Ning Zhao^{1,4*}, Vladimir Dusevich¹, Xiaomei Yao¹, Yong Wang¹, Francisco H. Nociti Jr. ², Lynda F. Bonewald^{1*} 2015 IADR/AADR/CADR General Session, Poster #3034
309. The Protective Effect of β -Aminoisobutyric Acid on Bone Cells. Daniel Kirkpatrick; Yukiko Kitase; Lynda F. Bonewald 2015 IADR/AADR/CADR General Session, Poster #1192
310. Deletion of β -Catenin Affects Osteocyte Unloading Response Joshua Farr; Delphine B. Maurel; Peipei Duan; Lynda F. Bonewald 2015 IADR/AADR/CADR General Session, Poster #2564

37th ASBMR-American Society for Bone and Mineral Research October 9 - 12, 2015, Washington State Convention Center, Seattle, Washington

311. Indirect Effects of Factors from Contracted Muscle on Osteoblasts via Osteocytes. Hisataka Kondo, Ning Zhao, Matt Prideaux, Yukiko Kitase, Julian Vallejo, Sarah Dallas, of Missouri Marco Brotto, Lynda Bonewald. ASBMR 37th Annual Meeting: Abstract No. MO0236
312. Glucose Fluctuations in Diabetes Have Targeted Effects on the Osteocyte *In Vitro* and *In Vivo*. Donna Pacicca, Tammy Brown, Josh Wirtz, Karen Kover, Yun Yan, Dara Watkins, Pei Tong, Lynda Bonewald. ASBMR 37th Annual Meeting: Abstract No.: MO0091
313. FGF9 Potently Induces Dmp1 Expression and Early Osteocyte Markers in a Cell Model of Osteocyte Differentiation. Lora McCormick, Kun Wang, LeAnn Tiede-Lewis, Hong Zhao, Yixia Xie, Lynda Bonewald, Dallas Sarah. ASBMR 37th Annual Meeting: Abstract No. FR0239 and SA0239
314. Characterization of a New Cre Model Targeting Osteocytes. Delphine Maurel, Mark L Johnson, Stephen E Harris, Marie A Harris, Lynda F Bonewald. ASBMR 37th Annual Meeting: Abstract No. FR0232 and SA0232

315. Direct roles of osteocyte in bone mineralization and weightless-caused bone loss: beyond mechanosensors * Yuan Hui, Rong Zhang, Yinshi Ren, Ying Liu, Jingya Wang, Lynda Bonewald, Weiping Qin, Jian.Q Feng. ASBMR 37th Annual Meeting: Abstract No. MO0235
316. Lineage Tracing of Cathepsin-K in Bone and Other Tissues. Farzin Takyar, Y Ryan Berry, Lynda Bonewald, John J Wysolmerski, Mark C Horowitz. ASBMR 37th Annual Meeting: Abstract No. FR0228 and SA0228

38th ASBMR-American Society for Bone and Mineral Research
September 16-19, 2016, Georgia World Congress Center, Atlanta, Georgia

317. Role of FGF9 in Promotion of Early Osteocyte Differentiation and as a Potent Inducer of FGF23 Expression in Osteocytes. * Lora A. McCormick, Kun Wang, LeAnn M. Tiede-Lewis, Hong Zhao, Yixia Xie, Samantha Neuburg, Aline Martin, Lynda F. Bonewald, Sarah L. Dallas. ASBMR 38th Annual Meeting: Abstract No. 1122
318. TGF β -Induced Wnt1 Secretion by Osteoclasts Promotes Osteocyte Viability In Vivo. * Megan Weivoda, Stephanie Youssef, Ming Ruan, Christine Hachfeld, Glenda Evans, Rachel Davey, Jeffrey Zajac, Brendan Lee, Mark Johnson, Lynda Bonewald, Jennifer Westendorf, Sundeep Khosla, Merry Jo Oursler. ASBMR 38th Annual Meeting: Abstract No. 1135
319. A Metabolite of Contracted Muscle, β -aminoisobutyric Acid, BAIBA, Inhibits Trabecular Bone Loss by Hindlimb Unloading Potentially through Maintenance of Osteocyte Viability. * Yukiko Kitase, Jianxun Yi, Julian Vallejo, Harika Vemula, William Gutheil, Marco Brotto, Lynda Bonewald. ASBMR 38th Annual Meeting: Abstract No. FR0115
320. Transgenic Expression of FNDC5 Impacts Skeletal Turnover by Targeting Osteoblasts, Osteoclasts and Adipocytes. * Clifford Rosen, Christiane Wrann, Bruce Spiegelman, Mary Boussein, Roland Baron, Kneichi Nagano, Phuong Le, Michaela Reagan, Lynda Bonewald. ASBMR 38th Annual Meeting: Abstract No. FR0117
321. Osteocytes Utilize Lacunar Acidification to Remove Calcium from Their Perilacunar Matrix During Lactation. * Katharina Ja'hn, Shilpa Kelkar, Hong Zhao, Yixia Xie, LeAnn M. Tiede-Lewis, Vladimir Dusevich, Sarah L. Dallas, Lynda F. Bonewald. ASBMR 38th Annual Meeting: Abstract No. FR0183
322. Isometric Force Training Enhances Bone Density in Aged and ALS Rat Forelimbs. Ajay K. Patel, Mark Dallas, Yixia Xie, Kimberly G. Stanford, John A. Stanford, Lynda Bonewald. ASBMR 38th Annual Meeting: Abstract No. LB-SA0365
323. Prostaglandin E2 signaling through EP4 receptor interacts with Keap1/Nrf-2 pathway in myogenesis and aging. * Chenglin Mo, Lynda Bonewald, Marco Brotto. ASBMR 38th Annual Meeting: Abstract No. SU0110

324. Differential Effects of the Muscle Factors, Irisin and BAIBA on Osteoblasts and Osteocytes. * Tsutomu Matsumoto, Yukiko Kitase, Bruce Spiegelman, Lynda Bonewald, Christiane Wrann. ASBMR 38th Annual Meeting: Abstract No. SU0111
325. Role of Mitochondria in Protection of Osteocytes Against Acute Oxidative Stress. Lynda Bonewald, Jianxun Yi. ASBMR 38th Annual Meeting: Abstract No. MO0182

39th ASBMR-American Society for Bone and Mineral Research
September 7-11, 2017, Denver Convention Center, Denver, Colorado

326. Osteoblasts are a major source of circulating Dickkopf-1 which is responsible for bone loss due to glucocorticoids in female mice. Juliane Colditz, Sylvia Thiele, Ulrike Baschant, Christof Niehrs, Lynda Bonewald, Lorenz Hofbauer, Martina Rauner. ASBMR 39th Annual Meeting: Abstract No. 1087
327. Extracellular Vesicle-Mediated Cell-Cell Communication in Bone and Potential Role in Muscle-Bone Crosstalk. Kun Wang, LeAnn Tiede-Lewis, Lora McCormick, Nuria Lara, Andrew Keightley, Nicholas Farina, Jian Huang, Jane Lian, Marco Brotto, Lynda Bonewald, Sarah Dallas. ASBMR 39th Annual Meeting: Abstract No. 1149
328. Long-term physiologic exercise maintains the protective effects of muscle-secreted factors on osteocyte viability. Yukiko Kitase, Hong Zhao, Jennifer Rosser, Michael J. Wacker, Julian Vallejo, Marco Brotto, Lynda F. Bonewald. ASBMR 39th Annual Meeting: Abstract No. FR0122
329. Comparison of Genomic Enhancer and Enhancer RNAs Utilized by aSMA Positive Bone Marrow Stromal Cells and aSMA Positive Periodontal Stem/Progenitor Cells During Differentiation. Stephen E Harris, Audrey Rakian, Rebecca Neitzke, Michael Rediske, Marie A Harris, Ivo Kalajzic, Jian Q Feng, Lynda F Bonewald⁴, Brian F Foster, Jelica Gluhak-Heinrich, Yong Cui. ASBMR 39th Annual Meeting: Abstract No. SU0131
330. Long-Term Exercise Restores Key Lipid Mediators in Muscle. Chenglin Mo, Julian Vallejo, Zhiying Wang, Liangqiao Bian, Thomas O'Connell, Lynda Bonewald, Michael Wacker, Marco Brotto. ASBMR 39th Annual Meeting: Abstract No. MO0452
331. Myostatin Inhibition of Osteoblastic Differentiation by Suppression of Osteocyte-derived Exosomal miR-218 in Vitro: A Novel Mechanism of Muscle-Bone Communication. Weiping Qin, Yuanzhen Peng, Wei Zhao, Paola Divieti Pajevic, Lynda F. Bonewald, William A Bauman. ASBMR 39th Annual Meeting: Abstract No. MO0452
332. Myostatin Inhibition of Osteoblastic Differentiation by Suppression of Osteocyte-derived Exosomal miR-218 in Vitro: A Novel Mechanism of Muscle-Bone Communication. Weiping Qin, Yuanzhen Peng, Wei Zhao, Paola Divieti Pajevic, Lynda F. Bonewald, William A Bauman. ASBMR 39th Annual Meeting: Abstract No. MO0495
333. Potential Novel Mediators of PTH Signaling in Osteocytes. Matthew Prideaux, Gerald Atkins, Lynda Bonewald. ASBMR 39th Annual Meeting: Abstract No. LB-MO0740

40th ASBMR-American Society for Bone and Mineral Research

September 28 – October 1, 2018, Palais des congrès de Montréal in Montréal, Québec, Canada

- 334. The skeletal actions of irisin are mediated through alpha V integrin receptors on osteocytes. Bruce Spiegelman, Hyeonwoo Kim, Christianne Wrann, Roland Baron, Mary Boussein, Lynda Bonewald, Clifford Rosen. ASBMR 40th Annual Meeting: Abstract No. 1001
- 335. Osteocyte-Specific CXCL12 Expression Is Critical for Load-Induced Bone Formation in Adult Mice Pamela Cabahug-Zuckerman, Chao Liu, Emily Fang, Alesha Castillo. ASBMR 40th Annual Meeting: Abstract No. 1046
- 336. An Osteocyte Protective Metabolite, β -aminoisobutyric Acid, BAIBA Mediates Survival Signals through MRGPRD/Ca²⁺/CaMKK β /AMPK pathway. Yukiko Kitase, Lynda Bonewald. ASBMR 40th Annual Meeting: Abstract No. FRI-0137
- 337. A Direct LC-MS/MS Method for the Simultaneous Quantification of Isomeric Aminobutyric Acids in Biological Fluids and Its Application in Bone-Muscle Studies Chenglin Mo, Zhiying Wang, Liangqiao Bian, Janalee Isaacson, Robert Recker, Joan Lappe, Lynda Bonewald, Marco Brotto. ASBMR 40th Annual Meeting: Abstract No. SUN-0153
- 338. Nfat Transcription Factors are Key Regulators of Osteocyte Function Independent of c-fos Matt Prideaux, Lynda Bonewald. ASBMR 40th Annual Meeting: Abstract No. SUN-0669
- 339. Metabolic Fuel Selection During the Osteoblast to Osteocyte Transition Thomas O'Connell, Matt Prideaux, Yukiko Kitase, Lynda Bonewald. ASBMR 40th Annual Meeting: Abstract No. LB SUN – 1175
- 340. Fibroblast Growth Factor 9 (FGF9) Acts as an Inhibitory Osteokine in Mouse C2C12 and Human Skeletal Muscle Cells Jian Huang, Kun Wang, Lora Shiflett, Leticia Brotto, Lynda Bonewald, Sarah Dallas, Marco Brotto. ASBMR 40th Annual Meeting: Abstract No. MON-0164
- 341. Mechanisms Responsible for Pamidronate Rescue of Post-Burn Muscle Loss in Children Fabrizio Pin, David Herndon, Andrea Bonetto, Celeste Finnerty, Christopher Nieten, Lynda Bonewald, Gordon Klein. ASBMR 40th Annual Meeting: Abstract No. MON-0166
- 342. Voluntary Wheel Running Exercise Maintains Osteocyte Connectivity and Muscle-Secreted Osteocyte Protective Factors in Aged C57BL/6 Mice Leann Tiede-Lewis, Yukiko Kitase, Kaitlyn Tom, Mark Dallas, Hong Zhao, Yixia Xie, Michael Wacker, Marco Brotto, Lynda Bonewald, Sarah Dallas. ASBMR 40th Annual Meeting: Abstract No. MON-0678

343. Differentiated Osteocytes Synthesize Taurine Which Reduces Sclerostin Expression and Prevents Osteocyte Cell Death Matt Prideaux, Yukiko Kitase, Morris Kimble, Thomas O'Connell, Lynda Bonewald. ASBMR 40th Annual Meeting: Abstract No. LB MON – 1176

Bone and Muscle Interactions: The Mechanical and Beyond
August 16 – 18, 2019, Hine Hall, IUPUI, Indianapolis, IN

344. Preservation of bone mass by anti-resorptive treatments improves skeletal muscle mass and function in a non-metastatic model of cancer cachexia Fabrizio Pin, Joshua Huot, Alyson L. Essex, Alexander J. Jones, Lynda F. Bonewald, Andrea Bonetto. Bone and Muscle Interactions: The Mechanical and Beyond: Session 2, Abstract No. 46
345. HIF-mediated metabolic reprogramming and mitochondria quality control in osteocytes Yukiko Kitase, Matt Prideaux, Lynda Bonewald. Bone and Muscle Interactions: The Mechanical and Beyond: Session 8, Abstract No. 33.
346. Taurine is a primary osteocyte-synthesized metabolite that protects against oxidative stress-induced cell death and regulates sclerostin expression. Matthew Prideaux, Yukiko Kitase, Morris Kimble, Thomas M. O'Connell, Lynda F. Bonewald. Bone and Muscle Interactions: The Mechanical and Beyond: Abstract No. 47
347. The effect of contracted muscle derived metabolite L- β -aminoisobutyric acid (L-Baiba) and Fluid Flow Shear Stress (FFSS) alone and in combination on the osteocyte cell-line MLO-Y4 Alberto Smargiassi, Yukiko Kitase, and Lynda Bonewald. Bone and Muscle Interactions: The Mechanical and Beyond: Relevant Session: Role of Soluble Factors in Muscle-Bone Interactionis. Abstract No. 50

41st ASBMR-American Society for Bone and Mineral Research
September 20 – 23, 2019, Orange County Convention Center, Orlando, FL

348. Molecular Mechanisms for Pamidronate Rescue of Post-burn Muscle Loss in Children Fabrizio Pin, Lynda Bonewald, Andrea Bonetto, Gordon Klein, ASBMR 41st Annual Meeting: Abstract No. FRI-75
349. WNT3a levels decline during aging and further decline in osteoporotic women- Implications for Bone-Muscle Crosstalk Jian Huang, Leticia Brotto, Marco Brotto, Janalee Isaacson, Lynda Bonewald, Mark Johnson, Robert Recker, Joan Lappe. ASBMR 41st Annual Meeting: Abstract No. FRI-86
350. The Muscle Metabolite, β -aminoisobutyric acid, L-BAIBA, Enhances the Effects of Suboptimal Mechanical Loading on New Bone Formation Alberto Smargiassi, Alexander Robling, Lynda Bonewald, Marco Brotto. ASBMR 41st Annual Meeting: Abstract No. FRI-92

351. Lipidomic and Metabolomic Profiles in Women with Low and High Bone Mineral Density: Searching for Early Serum Metabolic Biomarkers for Osteoporosis Risk Chenglin Mo, Zhiying Wang, Marco Brotto, Kuan-Jui Su, Hongwen Deng, Lynda Bonewald. ASBMR 41st Annual Meeting: Abstract No. FRI-238
352. Mechanical Loading Reduces the Adverse Effects of Fatty Acid Overload on Osteocytes Yukiko Kitase, Alberto Smargiassi, Lynda Bonewald, Nuria Lara, Mark Johnson. ASBMR 41st Annual Meeting: Abstract No. FRI-560
353. Live Cell and Intravital Imaging Reveals Differences in Mitochondrial Redox State, Morphology and Number between Osteoblasts and Osteocytes LeAnn Tiede-Lewis, Anthony Meljanac, Nuria Lara, Mark Johnson, Sarah Dallas, Yukiko Kitase, Lynda Bonewald. ASBMR 41st Annual Meeting: Abstract No. FRI-563.
354. Sex and Age Dependent Effects of Dmp1-Cre Mediated Deletion of Nfatc1 on Bone and Skeletal Muscle Matt Prideaux, Kendra Holliger, Anika Shimonty, Lynda Bonewald. ASBMR 41st Annual Meeting: Abstract No. LB SUN-1037
355. Effects of RANKL producing compared to non-RANKL producing tumors on muscle and bone Fabrizio Pin, Lynda F. Bonewald, Andrea Bonetto. ASBMR 41st Annual Meeting: Abstract No. MON-170
356. Overlapping properties and functions of matrix vesicles and exosomes/extracellular vesicles in bone cells Kun Wang, LeAnn Tiede-Lewis, Donggao Zhao, Andrew Keightley, Sarah Dallas, Lynda Bonewald. ASBMR 41st Annual Meeting: Abstract No. MON-587.

**42nd ASBMR-American Society for Bone and Mineral Research
September 11 – 15, 2020, Virtual Event**

357. A Simultaneous Bone and Muscle Surgical Injury Model Reveals Age/Gender Differences in Musculoskeletal Healing Claudia Cristina Biguetti, Ana Claudia Rodrigues Silva, João Shindo, Marco Antonio Hungaro Duarte, Jesus Carlos Andreo, Lynda Bonewald, Zhiying Wang, Marco Brotto, Mariza Matsumoto. ASBMR 42nd Annual Meeting: Abstract No. P-709
358. Blocking of osteocyte Toll-like receptor signaling uncouples bone resorption from inflammation * Tetsuya Yoshimoto, Mizuho Kittaka, Matt Prideaux, Lynda F Bonewald, Yasuyoshi Ueki. ASBMR 42nd Annual Meeting: Abstract No. 1076
359. Effects of Chronic Hypoxia on Osteocyte Energy Metabolism, Differentiation and Function Yukiko Kitase, Matthew Prideaux, Lynda F. Bonewald. ASBMR 42nd Annual Meeting: Abstract No. P-243
360. Increased Glycolytic Flux is Associated With Extracellular Matrix Mineralization and Acquisition of a Mature Osteocyte-Like Phenotype Matthew Prideaux, Yukiko Kitase, Lynda Bonewald, Tom O'Connell. ASBMR 42nd Annual Meeting: Abstract No. P-472

361. Non-bone metastatic cancers promote osteocytic bone destruction Fabrizio Pin, Joshua R. Huot, Matthew Prideaux, Lynda F. Bonewald, Andrea Bonetto. ASBMR 42nd Annual Meeting: Abstract No. P-159
362. The L enantiomer of β -aminoisobutyric acid (BAIBA), a contracting muscle metabolite, has positive effects on muscle in vitro and in vivo Fabrizio Pin, Yukiko Kitase, Anika Shimonty, Joshua R. Huot, Alberto Smargiassi, Andrea Bonetto, Lynda F. Bonewald. ASBMR 42nd Annual Meeting: Abstract No. P-239
363. Aminobutyric Acids: Potential Biomarkers for Musculoskeletal Health during Exercise and Aging? Zhiying Wang, Chenglin Mo, Charalampos Lyssikatos, Ziyue Liu, Stuart Warden, Lynda Bonewald, Marco Brotto. ASBMR 42nd Annual Meeting: Abstract No. P-351.

43rd ASBMR-American Society for Bone and Mineral Research
October 1 – 4, 2021, San Diego, California

364. Porphyromonas gingivalis causes alveolar bone loss in periodontitis by activating the MYD88 pathway in osteocytes, but not T/B cells Tetsuya Yoshimoto, Mizuho Kittaka, Matt Prideaux, Lynda F Bonewald, Yasuyoshi Ueki. ASBMR 43rd Annual Meeting: Abstract No. VPL-366
365. BAIBA is a novel regulator of FGF23 causing renal phosphate excretion in mice with skeletal muscle ablation of Slc20a1/Pit1 and Slc20a2/Pit2 Samapda Chande, Alberto Smargiassi, Zhiying Wang, Chenglin Mo, Marco Brotto, Lynda Bonewald, Clemens Bergwitz. ASBMR 43rd Annual Meeting: Abstract No. VPL-319
366. Body Weight Influences the Effects of Long-Term Voluntary Wheel Running, VWR, on Aging Bone Yukiko Kitase, Julian Vallejo, Mark R. Dallas, Thiagarajan Ganesh, Michael J. Wacker, Sarah L. Dallas, Mark L. Johnson, Lynda F. Bonewald. ASBMR 43rd Annual Meeting: Abstract No. VPP-541
367. Deletion of FNDC5, The Precursor for Irisin, Protects Against Lactation and Low Calcium Induced Bone Loss Anika Shimonty, Matthew Prideaux, Lynda Bonewald. ASBMR 43rd Annual Meeting: Abstract No. SUN-035
368. Non-Resistance Voluntary Wheel Exercise Initiated at Mid-Life Improves Skeletal Muscle Mass and Function in Aging Mice Julian Vallejo, Yukiko Kitase, Yixia Xie, Jennifer Rosser, Eleanor Ray, Nuria Lara-Castillo, Sarah Dallas, Mark Johnson, Lynda Bonewald, Michael Wacker. ASBMR 43rd Annual Meeting: Abstract No. SAT-115
369. Osteocyte scRNAseq Reveals Heterogeneous Differentiation Status and an Initial Framework for Chronic Disease Pathology Rafiou Agoro, Megan L. Noonan, Hongyu Gao, Yamil G. Marambio, William R. Thompson, Xiaoling Xuei, Yunlong Liu, Alexander G. Robling, Lynda F. Bonewald, Kenneth E. White. ASBMR 43rd Annual Meeting: Abstract No. SUN-199
370. RANKL blockade reduces cachexia and bone loss induced by non-metastatic cancer Fabrizio Pin, Alexander J Jones, Joshua R. Huot, Narasimhan Ashok, Teresa A

Zimmers, Lynda F Bonewald, Andrea Bonetto. ASBMR 43rd Annual Meeting: Abstract No. SAT-Late-Breaking Poster Session I

- 371. The aminobutyric acids GABA and AABA as potential biomarkers of physical performance and aging. Charalampos Lyssikatos, Zhiying Wang, Ziyue Liu, Stuart Warden, Marco Brotto, Lynda Bonewald, ASBMR 43rd Annual Meeting: Abstract No. SUN-303
- 372. The L/S enantiomer of beta aminoisobutyric acid, BAIBA, induces FGF23 expression in osteocytes in vivo, in isolated primary osteocytes and IDG-SW3 cells through the MRGPRD/Gas/cAMP/ β -catenin signaling pathway Eijiro Sakamoto, Yukiko Kitase, Lynda Bonewald. ASBMR 43rd Annual Meeting: Abstract No. VPP-583

44th ASBMR-American Society for Bone and Mineral Research
September 9 - 12, 2022, Austin, Texas

- 373. Deletion of FNDC5/Irisin protects against cancer induced cachexia syndrome Fabrizio Pin, Joshua Huot, Anika Shimonty, Andrea Bonetto, Lynda Bonewald. ASBMR 44th Annual Meeting: Abstract No.1029
- 374. CaMKK2-Deficient Osteocytes Regulate Osteoclasts and Bone Mass in a Sex-Dependent Manner Through Secreted Calpastatin Justin Williams, Mavis Irwin, Yong Li, Brett Mattingly, Emma Doud, Teresita Bellido, Angela Bruzzaniti, Lilian Plotkin, William Thompson, Lynda Bonewald, Uma Sankar. ASBMR 44th Annual Meeting: Abstract No. FRI-442
- 375. β -aminoisobutyric acid enantiomers elevate Fgf23 expression in osteocytes through distinct and time dependent signaling mechanisms in vitro and in vivo Eijiro Sakamoto, Yukiko Kitase, Alberto Smargiassi, Steven Welc, Clemens Bergwitz, Lynda Bonewald. ASBMR 44th Annual Meeting: Abstract No. SAT-108
- 376. PGE2 Alters Calcium Homeostasis in Response to Muscular Damage Logan Moore, Kamal Awad, Chenglin Mo, Jian Huang, Leticia Brotto, Venu Varanasi, Lynda Bonewald, Marco Brotto. ASBMR 44th Annual Meeting: Abstract No. SAT-307
- 377. FNDC5/Irisin Determines Bone Response To Calcium Deficiency In A Sex-Dependent Manner Anika Shimonty, Matt Prideaux, Fabrizio Pin, Hyeonwoo Kim, Lynda Bonewald. ASBMR 44th Annual Meeting: Abstract No. SAT-438
- 378. L-BAIBA as a marker of both bone density and body mass index in females, but not males Charalampos Lyssikatos, Zhiying Wang, Ziyue Liu, Stuart Warden, Marco Brotto, Lynda Bonewald. ASBMR 44th Annual Meeting: Abstract No. SUN-737
- 379. Isotope Tracer Studies Reveal Metabolic Branching During Osteocyte Differentiation Matt Prideaux, Naga Veera Yerra, Lynda Bonewald, Tom O'Connell. ASBMR 44th Annual Meeting: Abstract No. LB SUN-876

45th ASBMR-American Society for Bone and Mineral Research

October 12 – 16, 2023, Vancouver, British Columbia, Canada

- 380. Irisin modulates murine osteocytic osteolysis in a sex and age-specific manner Anika Shimonty*, Fabrizio Pin, Matt Prideaux, Gang Peng, Lynda Bonewald. ASBMR 45th Annual Meeting: Abstract No. FRI-368
- 381. Non-bone metastatic Head and Neck Cancer promote osteocyte changes in patients and mice bearing the MLM3 HNC cells Alexander J. Jones, Anika Shimonty, Joshua Huot, Daniel Marks, Andrea Bonetto, Lynda Bonewald, Michael Moore. ASBMR 45th Annual Meeting: Abstract No. SAT-115
- 382. Resistance exercise but not aerobic exercise in young males leads to increased serum concentration of β -aminoisobutyric acid, L-BAIBA Charalampos Lyssikatos*, Brandon Yates, Ziyue Liu, Kamal Awad, Andrew Coggan, Stuart Warden, Marco Brotto, Bonewald. ASBMR 45th Annual Meeting: Abstract No. SAT-475
- 383. Long-term Voluntary Wheel Running Generates Skeletal Muscle-derived Anti-inflammatory Oxylipins correlating with Osteocyte-derived Anti-inflammatory Cytokines in Aging Female Mice Yukiko Kitase*, Zhiying Wang, Chenglin Mo, Julian A. Vallejo, Michael Wacker, Marco Brotto, Lynda Bonewald. ASBMR 45th Annual Meeting: Abstract No. SAT-214
- 384. L- β -aminoisobutyric Acid (L-BAIBA) Treatment Enhances Musculoskeletal Properties in Combination with Voluntary Wheel Running Exercise in Male Mice Julian Vallejo*, Yukiko Kitase, Thiagarajan Ganesh, Mark Dallas, Yixia Xie, Mark Johnson, Lynda Bonewald, Michael Wacker. ASBMR 45th Annual Meeting: Abstract No. SAT-058
- 385. Regulation of Lipid Droplet Formation in Osteocytes Under Physiological and Pathological Conditions Mathilde Palmier*, Yukiko Kitase, Lynda Bonewald, Matt Prideaux. ASBMR 45th Annual Meeting: Abstract No. SUN-361
- 386. Interrogating Osteoclast Biology by Live Cell Imaging Reveals Novel Insight into their Cellular and Resorption Dynamics and Real-Time Effects of OPG-Fc and RANKL Sarah Dallas*, Kun Wang, Charles O'Brien, Anthony Meljanac, Roya Sabzian, Eleanor Ray, Vedvignesh Gorjala, Yixia Xie, Lynda Bonewald, David Moore. ASBMR 45th Annual Meeting: Abstract No. 1052
- 387. Emerging Roles of Prostaglandin E2 In Skeletal Muscle Repair and Regeneration Kamal Awad*, Jian Huang, Leticia Brotto, Lynda Bonewald, Marco Brotto. ASBMR 45th Annual Meeting: Abstract No. SAT-236

Sept 27-30, Toronto, Canada

- 388. Osteocyte PPAR δ is Protective Against Loss of Bone Strength due to Diet-Induced Obesity but by Distinct Mechanisms in Females Compared to Males. Eijiro Sakamoto, Matt Prideaux, Lynda F. Bonewald and Yukiko Kitase*, ASBMR 46th Annual Meeting: Abst 1020,

389. Association of Daily Steps with Stress Fracture but not with Osteoporosis in the "All of Us" Research Program Eric Wang, Monica Hubal, Lynda F. Bonewald and Gang Peng*, FRI-088
390. Expanding the Autosomal Recessive Hypophosphatemic Rickets Type I (ARHR1) Carrier Phenotype and Adult Treatment with Burosumab Noor Alhuda Sawalha*, Marcos Loreto Sampaio, Dora Liu, Frank Rauch, Kerry Siminoski, Lynda F. Bonewald and Leanne M. Ward, M.D., FRI-421
391. Osteocyte and muscle senescence is responsible for poor musculoskeletal recovery in colorectal cancer survivors Joshua Huot, PhD, Lynda F. Bonewald and Fabrizio Pin, PhD SUM-047
392. Muscle-Targeted Delivery of Osteocyte-Secreted Factor PGE2 for Sarcopenia Treatment Kamal Awad*1, Ahmed Yacoub1, Jian Huang1, Leticia Brotto1, Venu Varanasi, Lynda F. Bonewald and Marco Brotto SUN-199
393. Generation and Characterization of a Novel Inducible Sost_P2A_CreERT2 Mouse Model Matt Prideaux*, Alexander G. Robling and Lynda F. Bonewald 1130

Sept 4-8, Seattle, Washington

5. Oral Presentations and Invited Lectures

1. Bonewald LF, Pharr PN, Leary AG, Ogawa M. Purification of human hemopoietic stem cell growth factor. American Society for Experimental Hematology. Buffalo New York August 1986.
2. Oreffo ROC, Mundy GR, Bonewald LF. Osteoclasts activate latent transforming growth factor beta and vitamin A treatment increases TGFbeta activation. Second International Workshop on Cells and Cytokines in Bone and Cartilage. Davos, Switzerland April 1988.
3. Bonewald LF. Bone contains a unique form of latent TGF beta. Bioactive factors in bone development and repair. A conference in honor of Marshal R. Urist. Kerrville, Texas May 1988.
4. Bonewald LF. A novel osteoinductive factor from bone inhibits the formation and activation of osteoclasts. American Society Cell Biology/American Society of Bone and Mineral Research Joint Meeting. San Francisco, CA January 1989.
5. Bonewald LF, Schwartz Z, Oreffo ROC, Boyan B, Mundy GR. Direct and indirect effects of transforming growth factorbeta on bone cells of the osteoblast and osteoclast lineage. Texas Mineralized Tissue Society, Kerrville, Texas May 1989.

6. Wo Z, Bonewald LF, Oreffo ROC, Chirgwin JM, Capony F, Rochefort H, Mundy GR: The potential role of procathepsin D secreted by breast cancer cells in bone resorption. American Society for Bone and Mineral Research, Atlanta, Georgia 1990.
7. Bonewald LF. Role of TGF beta in bone remodeling. Gordon Research Conference on Periodontal Disease Plymouth State College, South Plymouth, New Hampshire June 24-28, 1991.
8. Bonewald LF, Dallas S, Mundy GR. Differential expression of messenger RNA for TGFbeta -1 and TGFbeta -1 binding protein in human osteoblastic cells. Workshop presentation. Molecular, Cellular Developmental Biology, Iowa State University, Ames Iowa, September 20-23, 1991.
9. Bonewald LF, Schwartz Z, Swain LD, Boyan BD. Stimulation of matrix vesicle enzyme activity in osteoblast-like cells by 1,25(OH)₂D₃ and transforming growth factorbeta. Fifth International Conference on cell-mediated calcification and matrix vesicles. Hilton Head, SC November 16-20, 1991.
10. Bonewald LF, Park-Snyder S, Miyazono K. Osteosarcoma osteoblast-like cell lines produce the 100 kDa form of latent TGF beta 1 which lacks the binding protein. Texas Mineralized Tissue Society, May 20 - 23, 1992.
11. SL Dallas, SP Snyder, Mundy GR, Bonewald LF. Characterization of secreted latent TGFbeta complexes in osteosarcoma cells. Symposium on Cancer Research, July 24, 1992 San Antonio, TX.
12. Bonewald LF, Harris SE. The role of the transforming growth factor beta family of proteins on bone cell differentiation and function. International Symposium on recent advances in life sciences. September 17, 1992, 14th International Symposium of Kyungpook National University. Taegu, Korea.
13. Bonewald LF. Effects of estrogen on growth factors. Schering Research Fdn. Workshop on "Sex Steroids and Bone", April 30 - May 1, 1993. Schering Institut fur Pharmacologie, Berlin, Germany.
14. Bonewald LF, Dallas M, Garcia C. Peptido-leukotrienes dramatically increase pit formation by human giant cells. TMTS, May 4, 1993, Houston, TX.
15. Bonewald LF. Role of TGFbeta in extracellular matrix formation by osteoclasts. Advances in Mineral Metabolism, March 27, 1994, Snowmass, CO.
16. Bonewald LF. Presentation of Results from the Peptide Synthesis/Mass Spectrometry Committee. Association of Biomolecular Resources Facilities Meeting, July 9, 1994, San Diego, CA.
17. Bonewald LF. Role of active and latent TGFbeta in bone remodeling. Advanced Tissue Sciences, July 11, 1994, La Jolla, CA.

18. Bonewald LF. Role of 5-lipoxygenase metabolites in osteoclastic bone resorption. Bone and Mineral Group Seminar, September 30, 1994, University of Toronto, Toronto, Ontario, Canada.
19. Bonewald LF. The role of the TGFbeta binding protein in new bone formation. University of Tokyo Dental School, November 10, 1994, Tokyo, Japan.
20. Bonewald LF. The role of the TGFbeta binding protein in new bone formation. Meikai University, November 15, 1994, Sakado, Japan.
21. Bonewald LF. The role of the TGFbeta binding protein in new bone formation. University of California at San Francisco, February 9, 1995.
22. Bonewald LF. The role of 5-lipoxygenase metabolites in osteoclastic bone resorption. Medical Advisory Council in Metabolic Bone Disease, Merck-Frosst Canada Inc., Lucern, Switzerland, May 19, 1995.
23. Bonewald LF. The function of the TGF beta binding protein in connective and skeletal tissues. University of California at Davis, Sacramento, CA, August 29, 1995.
24. Bonewald LF. Presentation of Results of Peptide Synthesis/Mass Spectrometry Committee, "Analysis of racemization during "standard" solid phase peptide synthesis", Association of Biomolecular Resource Facilities, San Francisco, CA, April 2, 1996.
25. Bonewald LF. The role of the extracellular matrix in controlling the action of growth factors, TMTS, Houston, TX, May10, 1996.
26. Bonewald LF. Mice lacking 5-lipoxygenase have increase corticol bone thickness. 10th International Conference on Prostaglandins and Related Compounds, Vienna, Austria, September 26, 1996.
27. Bonewald LF. Three aspects of Bone Remodeling: Resorption, Formation and Sensing of mechanical stress. Guthrie Foundation and Research Institute, Sayre, Pennsylvania, October 4, 1996.
28. Bonewald LF. Three aspects of Bone Remodeling: Resorption, Formation and Sensing of mechanical stress. Albert Einstein University, New York, New York, March 4, 1997.
29. Bonewald LF. Genetic Analysis of 5-Lipoxygensase function in mice. Advances in Mineral Metabolism. Snowmass, Colorado, April 3, 1997.
30. Zhao S, Dallas SL, Peehl D, Cramer S, Bonewald L. Prostate-specific Antigen is a Potent Activator of the 100kDa Latent TGFbeta . TMTS, August, 1997.
31. Bonewald LF, Rosser J, Dallas M, Storey B, Mundy GR, Boyce BF. Mice which lack the functional gene for 5-lipoxygenase lose significantly less bone than normal mice after ovariectomy. ASBMR, September, 1997.

32. Bonewald LF. Characterization of a New Osteocyte-like Cell Line, MLO-Y4 in Athe Third Cell: Functions of the Osteocyte Working Group. ASBMR, September, 1997.
33. Bonewald LF, Establishment and Characterization of an Osteocyte Cell line, MLO-Y4. Texas A&M Univ. Dept of Human Anatomy & Medical Neurobiology, College Station, Tx, Oct 9, 1997
34. Bonewald LF Bone Matrix and the Cells which reside there UCSF RCOB Series, San Francisco, Nov. 13, 1997.
35. Bonewald LF, Bibbs, L, Kates, SA, Khatri A, Medzihradsky, KF, McMurray, JS, Weintraub, S, Problem Solving in Peptide Synthesis Facilities. ABRF, March 1998.
36. Bonewald LF Prostate cells produce large amounts of TGFbeta2 and Prostate Specific Antigen activates small latent TGFbeta 2 but not TGFbeta 1. Northwestern Medical School and Cancer Institute, Chicago, Il , April 8, 1998.
37. Bonewald LF Osteocytes-The Neural Network of Bone. Meikei University, Sakado, Japan, Aug. 3, 1998.
38. Bonewald LF Establishment and characterization of an Osteocyte-like cell line MLO-Y4, Japanese Bone and Mineral Society Satellite Symposium, Tokyo, Japan, Aug. 7, 1998.
39. Bonewald LF Characterization of the osteocyte-like cell line, MLO-Y4, Asahi Chemical Co., Ohito, Japan Aug 11, 1998.
40. Bonewald LF The Role of TGF beta in Bone Development and Remodeling, ASBMB/ASBMR Fall Symposium "Regulation of Bone Formation", Taos, NM., October 17, 1998.
41. Bonewald LF, Establishment and Characterization of an Osteocyte-like Cell Line MLO-Y4, University of Arkansas, Oct. 23rd, 1998.
42. Bonewald, LF Potential Mineralization by Osteocyte-like Cell Lines, 6th Internatl. Conference on the Chemistry and Biology of Mineralized Tissues, Vittel, France, November 4, 1998.
43. Bonewald LF, Dallas S The potential role of TGF beta in Osteoporosis, Beijing Union Medical Hospital, Beijing, China March 27, 1999.
44. Bonewald LF The potential role of TGF beta in Osteoporosis, International Symposium on Osteoporosis, Xi'an China, April 3, 1999.
45. Peptide Synthesis Research Group, Workshop on the "Analysis of Synthetic Peptides", American Peptide Symposium, Minneapolis, MN, June 16, 1999.
46. Bonewald LF The role of the latent TGF beta binding protein in new bone formation, Gordon Conference on Elastin and Elastic Fibrils, New Hampshire, July 19, 1999.

47. Bonewald LF 'Osteocytes' in Meet the Professor luncheon, ASBMR, St. Louis, Mo. October 3, 1999.
48. Bonewald LF, The Role of the Latent TGF beta Binding Protein in Regulating Bone Formation, University of Helsinki, Helsinki, Finland, May 5, 2000.
49. Bonewald LF, The Role of the Osteocyte in Bone Remodeling, European Calcified Tissue Society, May 6-10, 2000. Tampere, Finland.
50. Bonewald LF, The Role of the Osteocyte in Bone Remodeling, University of Missouri at Kansas City, Mo. July 12, 2000.
51. Bonewald LF, Potential Functions of the Osteocyte in Bone, University of Texas at San Antonio, College of Sciences and Engineering, Oct. 27, 2000.
52. Bonewald LF, Use of the osteocyte-like MLO-Y4 cells to understand osteocyte function in vivo, 2001 Workshop on Fluid Flow in Bone, Phoenix, AZ Oct 11, 2001.
53. Bonewald LF, The Osteocyte, A Multifunctional Bone Cell, Creighton University, Omaha, NE, Oct 5, 2001.
54. Bonewald LF, The Osteocyte, A Mechanosensory, Multifunctional Cell, The Great Plains States Society for Molecular Biology and Genetics, Omaha, NE, June 3, 2002.
55. Bonewald LF, The Osteocyte, A Mechanosensory, Multifunctional Bone Cell, Kansas University Medical Center, Kansas City, Ks, Jan 16, 2003.
56. Bonewald LF, Osteoblasts and Osteocytes, Annual Meeting of the TULES Graduate School, University of Turku, Turku, Finland, June 9, 2003
57. Bonewald LF, Osteocyte Targeting and Regulation of Osteoclast Activity, BioCity Seminar, Turku, Finland, June 10, 2003.
58. Bonewald LF, The Role of Mechanosensation in Osteocyte Function, Univ. Of Missouri at Columbia, Aug. 28, 2003.
59. Bonewald LF, Osteocytes and Mechanosensing: A Team Approach, ASBMR Fluid Flow in Bone Working Group, Sept 19, 2003, Minneapolis, MN.
60. Bonewald LF, Osteocyte Biology: Its Implications for Osteoporosis, International Conference on Osteoporosis and Bone Research, Oct. 10-14, 2003, Beijing, China.
61. Bonewald LF for Jian Feng, The Role of DMP1 during postnatal development of the Skeleton, International Conference on Osteoporosis and Bone Research, Oct. 10-14, 2003, Beijing, China.

62. Bonewald LF, "The Role of Mechanosensation in Osteocyte Function", The Musculoskeletal Research Core Center, Univ. of Michigan, Jan. 28, 2004, Ann Arbor, MI.
63. Bonewald LF, "Mechanosensory Gene Expression in Osteocytes". Experimental Biology 2004, American Association of Anatomists Workshop on Bone Signaling, Washington DC, April 19, 2004.
64. Bonewald LF, "QStar: Current and Potential Uses in Proteomics Research", Discovery Proteomics for Applied Biosystems, Midwest Research Institute, Kansas City, Mo, April, 26, 2004.
65. Bonewald LF, "Osteocytes and Mechanical Transduction". International Osteoporosis Foundation World Congress on Osteoporosis, Rio de Janeiro, Brazil, May 16, 2004.
66. Bonewald LF, "Strained Relationships" a Tribute to Lance Lanyon, Royal Veterinary College, Hawkshead Campus, UK, July 28, 2004
67. Bonewald LF, "Correlation of In Vitro Fluid Flow Shear Stress with In Vivo Loading" 6th International Bone Fluid Flow Workshop, Seattle, WA, Sept, 30, 2004.
68. Bonewald LF, for Barragan-Adjemian, Nicolella, Dusevich, Dallas, Eick, Bonewald, "A Proposed Model for the Mineralization of Bone", ICCMBT, Oct. 18, 2004.
69. Bonewald LF, "Osteocytes and Mechanical Transduction", Univ. of Alabama Center for Metabolic Bone Disease, Oct. 21, 2004
70. Bonewald LF, "Osteocytes are Dynamic, not Passive Cells in their Response to Strain and Remodeling of their Microenvironment". Univ. of Connecticut Craniofacial Tissue Repair and Regeneration Program, June 15, 2005
71. Bonewald LF, "Mechanisms of Mineralization", Bone and Tooth Gordon Research Conference, Univ. of New England, Biddeford, ME, July 11, 2005.
72. Bonewald LF, "Generation and Function of Osteocyte Dendritic Processes", 35th Sun Valley Workshop on Skeletal Tissue Biology, July 31st-Aug 3, 2005
73. Bonewald LF "Osteocytes as Targets for Therapeutic Intervention", KC Bone and Tooth Seminar Series, Kansas City, MO., Aug. 9, 2005.
74. Bonewald LF, "Osteocytes are dynamic, not passive cells in their response to strain and remodeling of their microenvironment". Bone Fluid Flow Workshop, New York, NY., Sept. 21st, 2005.
75. Bonewald LF, "Mesenchymal Stem Cells-A Review". Stem Cell Club Meeting, Children's Mercy Hospital, KC, MO. Nov. 17, 2005.

76. Bonewald LF, Brannon, J "Causes of Osteonecrosis". Orthopaedic Journal Club meeting, UMKC School of Medicine, KC, MO., Jan. 26, 2006.
77. Bonewald LF, "Osteocytes as Active, not Passive Cells", Medical University of South Carolina, Charleston, SC, March 15, 2006.
78. Bonewald LF, "The Role of TGFbeta and LTBP1 in the Extracellular Matrix", McGill University, Montreal, Canada, April 19, 2006.
79. Bonewald LF, "Osteocytes as Dynamic not Passive Cells", McGill University School of Dental Medicine, Montreal, Canada, April, 20, 2006.
80. Bonewald LF, "Osteocytes As Dynamic, not Passive Cells, Univ. of Alabama at Birmingham Center for Metabolic Bone Disease, Birmingham, Al, May 17, 2006.
81. Bonewald LF, Barragan, C., Guo, D. Dallas, S, "Characteristics and Function of the Osteoid-Osteocyte", IADR, Brisbane, Australia, July 1, 2006.
82. Bonewald LF, "Osteocyte Modification of their Microenvironment", Bone Research Society/British Orthopaedic Research Society Joint Meeting, Southampton, UK, July 5, 2006.
83. Bonewald LF, "Osteocytes as Multifunctional Cells", Sun Valley Workshop, Sun Valley Idaho, July 30th, 2006.
84. Bonewald LF, "Osteocytogenesis" Tokyo Medical and Dental University, Tokyo, Japan, Sept. 4, 2006.
85. Bonewald LF, "The Role of the Osteoid-Osteocyte and Mature Osteocyte in Mineralization", 16th International Microscopy Meeting, Sapporo, Japan, Sept. 7, 2006.
86. Bonewald LF, "Osteocytes as Multifunctional, Mechanosensory Cells", Tokushima University, Tokushima, Japan, Sept. 8, 2006.
87. Bonewald LF, "Osteocytes as Mechanosensory Cells", UMKC SOD 125th Oral and Craniofacial Biology Meeting, Kansas City, Mo, Octo. 9, 2006.
88. Bonewald LF, "Osteocytes as Mechanosensory Cells", American Association of Orthopaedic Surgeons Developmental Biology Meeting, Toronto, Ontario, Canada, Oct. 27, 2006.
89. Bonewald LF, "Osteocytes as Regulators of Phosphate Homeostasis", Research Grand Rounds, KUMC, Jan. 17, 2007.
90. Bonewald LF, "the Multifunctional Osteocyte-Orchestrator of Bone Remodeling, Research Seminar Series, Children's Mercy Hospital, Jan. 19, 2007.

91. Bonewald LF, "Osteocytes as Multifunctional Cells", Eli Lilly, Indianapolis, IN, Feb 16, 2007.
92. Bonewald LF, "The Multifunctional Osteocyte-Orchestrator of Bone Remodeling", IADR/AADR, New Orleans, LA, March 21, 2007.
93. Bonewald LF, "The Osteocyte as a Dynamic, Multifunctional Cells", New York Academy of Sciences, NY, April 26, 2007.
94. Bonewald LF, "The Osteocyte", European Calcified Tissue Meeting, Copenhagen, Denmark, May 7, 2007.
95. Bonewald LF, "The Effects of Glucocorticoids on Bone Cells", Clinical Grand Rounds, KUMC, May 23, 2007.
96. Bonewald LF, "The Osteocyte-Orchestrator of Bone Remodeling", Medical Univ. of Rochester, Rochester, NY, June 20, 2007.
97. Bonewald LF, "The Osteocyte" Endocrine Fellow Meeting, ASBMR 2007, Sept 14, 2007, Honolulu, Hawaii.
98. Bonewald LF, "Role of Osteocytes in Mineral Homeostasis", Symposium C, ASBMR 2007, Sept. 15, 2007, Honolulu, Hawaii.
99. Bonewald LF, "The Role of the Osteocyte in Mineral Homeostasis", Symposium on X-Linked Hypophosphatemic Rickets, Anlyan Center, Yale University, Ct, Oct. 18, 2007.
100. Bonewald, LF, "Osteocytes a Regulators of Mineral Homeostasis", KUMC Kidney Institute Symposium, Kansas City, KS, Oct. 19, 2007.
101. Bonewald LF, "The Multifunctional Osteocyte: Orchestrator of Formation and Resorption", Zeist, The Netherlands Nov. 15, 2007.
102. Bonewald LF, "The Role of the Osteocyte in Bone Modeling and Remodeling", Molecular Signalling in Bone Remodelling: Therapeutic Opportunities, Sydney, Australia Nov. 24, 2007.
103. Bonewald LF, "The Multifunctional Osteocyte: Orchestrator of Bone Remodeling", Adelaide, University of Adelaide, Australia, Nov. 26, 2007.
104. Bonewald LF, "The Osteocyte as a signaling Focus", Targeting Bone Remodeling for the Treatment of Osteoporosis, Washington, DC. Dec. 6, 2007.
105. Bonewald LF, "Are Osteocytes the New Frontier in Bone Research?" University of Delaware, Dec. 12, 2007.
106. Bonewald LF, "The Role of the Osteocyte in Health and Disease" Endocrine Grand Rounds, Mass Gen Hosp, Boston Ma, Feb 26, 2008.

107. Bonewald LF, "The Role of the Osteocyte in Bone and Mineral Metabolism", International Bone and Mineral Society, Davos, Switzerland, March 8, 2008.
108. Bonewald LF, "Discovering Both Old and New Functions for Osteocytes", University of Alabama Center for Metabolic Bone Disease, Birmingham, AL, March 26, 2008.
109. Bonewald LF, "Osteocytes-The Final Frontier", Procter and Gamble, Cincinnati, Oh, April 1, 2008.
110. Bonewald LF, "Osteocytes as Signaling Cells", AAIM, Aspen, Co. April 8, 2008.
111. Bonewald LF, "The Multifunctional Osteocyte: Orchestrator of Resorption and Formation", Bone Disease Program of Texas, M.D.Anderson, Houston, Tx May 19, 2008.
112. Bonewald LF, "Osteocytes as Therapeutic Targets", Genzyme, Boston, Ma, May 27, 2008.
113. Bonewald LF, "The Effects of Healthy and Unhealthy Osteocytes on the Skeleton", Chicago City Wide Bone Group Lecture, Chicago, Il, May 28, 2008.
114. Bonewald LF, "The Multifunctional Osteocyte: Orchestrator of Resorption and Formation", Rush University, Chicago, Il, May 29, 2008.
115. Bonewald LF "Discovering Old and New Functions for Osteocytes", UC Davis Center for Healthy Aging, Sacramento, Ca., July 14, 2008.
116. Bonewald LF, "The Function of Early and Mature Osteocytes in Biomineralization", Biomineralization Gordon Research Conference, Colby-Sawyer College, NH, Aug 14, 2008.
117. Bonewald LF, "The Osteocyte", Endocrine Fellow Meeting, ASBMR 2008, Sept 11, 2008, Montreal, Canada.
118. Bonewald LF, "Osteocyte Communication" Allied Health Professionals, ASBMR, Sept. 13, 2008 Montreal, Canada.
119. Bonewald LF, "Is there a role for the osteocyte in arthritic disease?" Rheumatoid Disease Workshop, ASBMR, Sept. 14, 2008 Montreal, Canada.
120. Bonewald LF, "Osteocytes-Role in Health and Disease", Rare Bone Diseases Meeting, Oct 24, 2008, NIH, Washington, DC.
121. Bonewald LF, "Mechanosensing and Signaling in Osteocytes", Society for the Physical Regulation in Biology and Medicine, Jan. 5, 2009, Turtle Bay, Hawaii.
122. Bonewald LF, "Osteocytes, Mechanotransduction, and Osteoporosis", mechanobiology Keystone Conference, Jan. 19, 2009, Taos, NM.

123. Bonewald LF, "The Role of Mechanosensation in Osteocyte Function", Dental Research Day, March 10, 2009, University of Kentucky, Lexington, Kn.
124. Bonewald LF, "The Molecular Biology of the Osteocyte", Conference for International Bone and Mineral Society, Mar 23, 2009, Sydney Australia.
125. Bonewald LF, "The Role of the Osteocyte in Mineral Homeostasis", Endocrinology Conference, June 13, 2009, Washington, DC.
126. Bonewald LF, "Osteocytes: An Overview". Advances in Molecular Pharmacology and Therapeutics of Bone Diseases, July 7, 2009, Oxford, England.
127. Bonewald LF, "The Role of β -Catenin in Osteocyte Function and Response to Mechanical Load", Japanese Bone and Mineral Society Meeting, July 24, 2009, Osaka, Japan.
128. Bonewald LF, "Hormonal versus Mechanical Regulation of Osteocyte Function" Lunch with the Professor, Japanese Bone and Mineral Society Meeting, July 25, 2009, Osaka, Japan.
129. Bonewald LF, "Avoiding the Non-Specific Effects of siRNA in Cells of Bone and Teeth" Sun Valley Workshop, August 11, 2009, Sun Valley, Idaho.
130. Bonewald LF, "Osteocytes, The New Frontier", In Vivo Working Group, Sept. 11, 2009, ASBMR, Denver, Co.
131. Bonewald LF, "Altered Mechanical Signaling: Aging and the Osteocyte", Working Group on Skeletal Aging, Sept. 11, 2009, ASBMR, Denver, Co.
132. Bonewald LF, "Osteocytes, Mechanosensation, and Osteoporosis", Bioengineering Seminar Series, October 9, 2009, University of Kansas School of Engineering, Lawrence, KS.
133. Bonewald LF "Osteocytes and Osteoporosis" XIV Congreso SEOIMM, October, 30, 2009, Santander, Spain.
134. Bonewald LF "Osteocytes: Their Function in Response to Load" XIV Congreso SEOIMM, October, 30, 2009, Santander, Spain.
135. Bonewald LF, "Osteocytes as Multifunctional Cells" The 26th Naito Conference on Osteobiology, Nov. 6, 2009, Awaji Yumebutai International Conference Center, Hyogo, Japan.
136. Bonewald LF, "The No-Longer Secret World of the Osteocyte". Jan. 28, 2010, Loma Linda University, Loma Linda, Ca.
137. Bonewald LF, "Osteocytic Osteolysis revisited as Osteocyte Remodeling of their Microenvironment" Davos, Switzerland, March 15, 2010.

138. Bonewald LF, "The Osteocyte: Its Many and Pivotal Roles in Bone Metabolism", St. Michael's Toronto, Canada March 26, 2010.
139. Bonewald LF, "Osteocyte Biology: An 'InDepth' Perspective, The Korean Endocrine Society Meeting, Seoul, Korea, April 28, 2010.
140. Bonewald LF, "The Potential Role of Osteocytes in Disease, The Korean Endocrine Society Meeting, Seoul, Korea, April 28, 2010.
141. Bonewald, LF, "Practical Issues Related to the Use of siRNA in Bone Cells: How to Avoid the Non-Specific Effects of siRNA', The Korean Endocrine Society Meeting, Seoul, Korea, April 28, 2010.
142. Bonewald LF, 'Sarcopenia and Osteoporosis', ASBMR Corporate Advisory Board Meeting, Washington, DC., June, 1, 2010.
143. Bonewald LF, 'Osteocytes as Endocrine Cells', Musculoskeletal and Tissue Engineering Gordon Conference, Andover NH, Aug. 1, 2010.
144. Bonewald LF, 'The Role of Osteocytes in the Kidney-Bone Axis". International Pediatric Nephrology Meeting, New York, NY, Sept. 1, 2010.
145. Bonewald LF, 'Role of Mechanical Loading in Maintenance of Osteocyte Viability, International Bone Fluid Flow Workshop, Toronto, Canada, Oct 13, 2010.
146. Bonewald LF, 'Osteocytes and Bone Homeostasis', 5th International Conference on Osteoporosis and Bone Research, Oc 29, 2010, Shenzhen, China
147. Bonewald LF, 'Bone-a Newly Discovered Endocrine Organ', Tonji Medical Hospital, Shanghai, China Nov. 1, 2010.
148. Bonewald LF, 'Maintaining the Youthful Osteocyte to Prevent Osteoporosis', New Mexico Bone Club, Albuquerque, NM. Nov.6, 2010.
149. Bonewald LF, 'Challenging the Dogma Regarding Osteocyte Function', Harrigan Lecture, Texas Tech Univ. Lubbock, Tx Nov.19, 2010
150. Bonewald LF, "Glucocorticoid Induced Osteocyte Apoptosis or Autophagy?" Le Studium Osteocyte Imaging Workshop, Orleans, France Jan. 13, 2011.
151. Bonewald LF, "Osteoblast to Osteocyte Differentiation" Le Studium Osteocyte Imaging Workshop, Orleans, France Jan. 13, 2011.
152. Bonewald LF, "The Role of the Osteocyte in Bone Disease", Hospital for Special Surgery, New York, New York, March 11, 2011.

153. Bonewald LF, "Muscle-Bone Crosstalk", Hospital for Special Surgery, New York, New York, March 11, 2011.
154. Bonewald LF, "Role of the Osteocyte in Mechanotransduction and in Age-Related Bone Loss, Forum on Aging and Skeletal Health, Natcher Conference Center, NIH, Bethesda, MD, Mar 22, 2011.
155. Bonewald LF, "Osteocyte function in muscle bone crosstalk" Meet the Professor, AIMM Meeting, Snowmass, Co., Apr 8, 2011.
156. Bonewald LF, "The Role of the Osteocyte in Health and Disease", Endocrine Grand Rounds, University of Arkansas, April, 29, 2011.
157. Bonewald LF, "Osteocyte Regulation of Muscle Function" UCSF San Francisco, Ca July 15, 2011.
158. Bonewald LF, "Osteocyte Regulation of Muscle Function" Van Andel Research Institute, Ann Arbor, MI Aug. 10, 2011
159. Bonewald LF, "Osteocyte: The Great Communicators". Lou Avioli Memorial Lecture, ASBMR, Sept. 17, 2011
160. Bonewald LF, "Protection against the Effects of Glucocorticoid on Osteocyte Viability and Function" International Conference on Glucocorticoid Induced Osteoporosis, Padua Italy Oct. 27, 2011.
161. Bonewald LF "Osteocytes: Orchestrators of Bone Remodeling", American College of Rheumatologists, Chicago, IL Nov. 4, 2011.
162. Bonewald LF "Role of Osteocytes in Bone Remodeling", The Kidney Institute, Kansas University Medical Center, Nov. 18, 2011.
163. Bonewald LF "Building Teams to Tackle Important Problems: Lessons from the Osteocyte". KU CTSA Seminar Series, Dec. 8, 2011.
164. Bonewald LF "The Role of the Osteocyte Perilacunar Matrix in Mechanosensation", Biomechanical Engineering Society Meeting, San Juan, Puerto Rico, January 4, 2012.
165. Bonewald LF "Bone and Muscle Interactions Independent of Loading". Orthopaedic Research Society Meeting, San Francisco, Ca. Feb. 5, 2012.
166. Bonewald LF "Early Beginnings in Osteocyte Communication". University of Texas Health Science Center, San Antonio, Tx. April 2, 2012.
167. Bonewald LF "Osteocyte Biology". 9th Symposium on Growth and Nutrition in Children with CKD, San Diego, Ca. April 14, 2012

168. Bonewald LF "Osteocytes-An Overview". Osteoporosis Global Therapeutic Expert Forum, Washington, DC, April 19, 2012.
169. Bonewald LF, "The Role of the Osteocyte in Muscle-Bone Crosstalk". Musculoskeletal Center, Univ of Pennsylvania, Philadelphia, PA, April 24, 2012.
170. Bonewald LF, "The Mechanosensory Cells of the Skeleton: Osteocytes". 2012 Bernier Lecture in Skeletal Biology, Univ. of Western Ontario, London, Canada May 10, 2012.
171. Bonewald LF "The Role of the Osteocyte in Muscle-Bone Crosstalk", 2012 dCM XIII, Bone Fixation, Repair and Regeneration, AO Foundation, Davos, Switzerland June 24, 2012..
172. Bonewald LF "Osteocytes: An Update". Sun Valley Musculoskeletal Workshop, Sun Valley, Idaho Aug. 8, 2012.
173. Bonewald LF "Osteocyte Signaling and Regulation of Bone Turnover" COAST meeting, Chapel Hill, NC. Oct. 16, 2012.
174. Bonewald LF 7th International Symposium of the Global Center of Excellence, GCOE, Tokyo, Japan, Nov., 2012
175. Bonewald LF "Potential Roles for the Osteocyte in Cancer Growth and Metastasis", IBMS Cancer Induced Bone Disease 2012, Lyon, France, Nov. 16, 2012.
176. Bonewald LF "Muscle-Bone Crosstalk", Max Planck Institute, Berlin, Germany, Nov. 20, 2012.
177. Bonewald LF, "Osteocyte Remodeling of their Perilacunar Matrix", Julius Wolffe Institute, Berlin, Germany, Nov. 21, 2012.
178. Bonewald LF, "How your osteocytes keep you healthy", Scientific Saturday, Columbia MO, Dec. 1, 2012.
179. Bonewald LF, "The No Longer Secret World of the Osteocyte", AADR-Dallas Section, Texas A&M Baylor College of Dentistry, Dallas, TX, Feb. 13, 2013.
180. Bonewald LF "Osteocytes-Why We Only Look Where the Light is Shining", Rennels Distinguished Lecture, UTHSCSA, San Antonio, Texas, March 26, 2013.
181. Bonewald LF "Muscle and Bone Interactions Independent of Loading", Bozler Distinguished Lecture, Ohio State, Columbus, OH March 29, 2013.
182. Bonewald LF "Loading Independent Interactions of Muscle and Bone: Potential Synergy, ICSTS-ASBMR International Chinese Musculoskeletal Research Conference, Suchow, China, May 21, 2013.
183. Bonewald LF, "Osteocytes-Surprising New Functions", 2013 International Workshop on Bone Biology, Xian, China, May 24, 2013.

184. Bonewald LF Meet the Professor, Japanese Society for Bone and Mineral Research, Kobe, Japan, May 28, 2013
185. Bonewald LF "Osteocytes Acting Like Osteoclasts and Osteoblasts", Japanese Society for Bone and Mineral Research, Kobe Japan, June 1, 2013.
186. Bonewald LF "Osteocytes: Role in Mechanotransduction". VIII Seminaire Qualite Osseuse, Mercure Le Coudray, France, June 19, 2013.
187. Bonewald LF "The Osteocyte: Conductor of the Bone Cell Orchestra". Sante Fe Bone Symposium, August 10, 2013, Sante Fe, NM.
188. Bonewald LF "The Amazing Osteocyte continue to Amaze". Oklahoma Skeletal Biology Symposium, Oklahoma Medical Research Fdn. Oklahoma City, Nov. 4th, 2013.
189. Bonewald LF "Bone: The "Hard" Tissue to Study" Science Pioneers, Union Station, Kansas City, MO, Nov. 9th, 2013.
190. Bonewald LF, "The Role of the PTHR1 in 'Osteocytic Osteolysis', Dresden University, Dresden, Germany, Nov. 20, 2013.
191. Bonewald LF "Muscle and Bone Interactions Independent of Loading" University Medical Center Hamburg-Eppendorf, Hamburg, German, Nov. 25, 2013.
192. Bonewald LF, "Osteocytes as Regulators of Bone, Muscle and Kidney", Creighton University, Omaha, NE, Dec. 4, 2013.
193. Bonewald LF, "How Many Functions Do Osteocyte Have?", Bones and Teeth Gordon Conference, Galveston, Tx, Jan. 31, 2014.
194. Bonewald LF, "The Osteocyte as an Endocrine Cell....and More", University of Michigan, Ann Arbor, MI, Feb. 4, 2014.
195. Bonewald LF, "Improving Surgical Outcomes through Research", Missouri State Orthopaedic Association, Arrowhead Stadium, Kansas City, MO April 5, 2014.
196. Bonewald LF, "The Amazing Osteocyte; Conductor of the Bone Cell Orchestra", Karolinska University Hosptal Huddinge, Stockholm, Sweden, Aug.19, 2014.
197. Bonewald LF, "Effects of Glucocorticoid on Osteocyte Function, Cell Death, and Local Environment", Karolinska University Hosptal Huddinge, Stockholm, Sweden, Aug.19, 2014.
198. Bonewald LF, "The Amazing Osteocyte; Conductor of the Bone Cell Orchestra", Clinical Osteoporosis Research School, Marstand, Sweden, Aug.21, 2014.
199. Bonewald LF, "Osteocytes: The MEchanosensory Cells of the Skeleton", Clinical Osteoporosis Research School, Marstand, Sweden, Aug.21, 2014.

200. Bonewald LF, "The Role of Osteoblasts and Osteocytes in Rare Bone Disease", Rare Bone Disease Workshop, Houston, Tex, Sept. 11, 2014.
201. Bonewald LF, "Biological Effects of Silorane Bone Cement", Bone Cement Symposium, Kansas City, MO., Oct. 4, 2014.
202. Bonewald LF, "Musculoskeletal Research at UMKC", 108th Annual Meeting of the Interurban Orthopaedic Society, Kansas City, MO., Oct. 10, 2014.
203. Bonewald LF, "Mechanical regulation of Bone-The Osteocyte Connection", 2nd Immunobone International Symposium, Potsdam, Germany, October 14, 2014.
204. Bonewald LF, "The Amazing Osteocyte-Conductor of the Bone Cell Orchestra", University of Modena, Modena, Italy, October 16, 2014.
205. Bonewald LF, "The Role of β -Catenin in Osteocyte Mechanosensation", University of Modena, Modena, Italy, October 17, 2014.
206. Bonewald, LF, "The Role of Osteocytes in Bone Disease", Constance Anast Lectureship, Bone Day, Boston Children's Hospital, Boston, MA, Oct. 29, 2014.
207. Bonewald LF, "The Osteocyte-An Endocrine Cell", Session: The Brain behind the Bones, American Society of Nephrology, Philadelphia, PA., Nov. 14, 2014.
208. Bonewald LF, "The Role of the Osteocyte in Muscle-Bone Interactions Independent of Loading", KCUMB Research Day, Kansas City, Mo. Nov. 19, 2014.
209. Bonewald LF, "The Osteocyte-An Extraordinary Cell", 2nd Clinical Bone Network Forum, Tokyo, Japan, February 15, 2015.
210. Bonewald LF, "Osteocytes in Bone are Essential for Health and Well Being", Keynote Address in "Mechanisms Controlling the Development of Skeletal and Dental Tissues, IADR/AADR/CADR meeting, Boston, MA, March 12, 2015.
211. Bonewald LF, "Osteocytes are Essential for Health and Well Being", KUMC Musculoskeletal Seminar Series, Kansas City, KS, March 18, 2015.
212. Bonewald LF, "The Role of Osteocytes in Health and Disease", European Calcified Tissue meeting, Rotterdam, NE, April 25, 2015.
213. Bonewald LF "Generation of a Novel Bone Cement to Fight Bone Infection", Center for Biomedical Science and Engineering Distinguished Campus Seminar, Missouri Science and Technology, Rolla, MO, May 7, 2015.
214. Bonewald LF "Opportunities and Challenges Facing Schools of Dentistry", College of Dentistry, Ohio State Univ, Columbus, OH May 11, 2015.

215. Bonewald LF "Osteocytes from Obscurity to the Llmelight", College of Dentistry, Ohio State Univ, Columbus, OH, May 11, 2015.
216. Bonewald LF "Muscle's Relationship to Bone", 7th Internatl Conf. on Children's Bone Health, Salzburg, Austria, June 30th, 2015.
217. Bonewald LF, "Osteocytic Remodeling of their Perilacunar Matrix", Wichita State University, September 14, 2015.
218. Bonewald LF, "The Role of the Osteocyte in Bone Adaptation to Load", Symposium II, Orthopaedic Alumini Association 97th Meeting, Hospital for Special Surgery, New York, October 23, 2015.
219. Bonewald LF, "The Role of the Osteocyte in Health and Disease", 12th Wiesel Distinguished Lectureship, Orthopaedic Alumini Association 97th Meeting, Hospital for Special Surgery, New York, October, 23, 2015.
220. Bonewald LF, "Osteocyte Remodeling of their Perilacunar Matrix: Role of the PTH Type 1 Receptor", Metabolic Bone Disease Grand Rounds, Hospital for Special Surgery, New York, October 26, 2015.
221. Bonewald LF, "Osteocyte Crosstalk and Regulation of Muscle", KU Leuven, Leuven, Belgium, February 26, 2016.
222. Bonewald LF, "The 'Magical' Multifunctional Osteocyte", Herbie Fleish Workshop, Brugge, Belgium, February 28, 2016.
223. Bonewald LF, "Muscle-Bone Interactions Independent of Loading", The University of Auckland, Auckland, New Zealand, April 1, 2016.
224. Bonewald LF "Mechanosensation in Osteocytes", Stevens Institute of Technology, Hoboken, NJ, April 8, 2016.
225. Bonewald LF, "The Multifunctional Osteocyte", McGill University, Montreal, Canada, April 14, 2016.
226. Bonewald LF, "Transforming Discoveries to Applications through Interinstitutional and Interdisciplinary Collaborations", KCALSI meeting, Kansas City, Mo. April 21, 2016.
227. Bonewald LF, "Muscle-Bone Crosstalk Indepdent of Loading", AAOS Workshop on Bone-Joint Crosstalk, Chicago II, April 29, 2016.
228. Bonewald LF, "The Musculoskeletal System as an Endocrine Organ", Nephrology Department, Indiana University, In, Aug 31, 2016.
229. Bonewald LF, "The Role of the Osteocyte in Muscle/Bone Crosstalk with Aging", Advances and Gaps in Musculoskeletal Biology, National Institue on Aging, Bethesda, MD Sept 2, 2016.

230. Bonewald LF, "The Role of the Osteocyte in Musculoskeletal Homeostasis", IUSCC TMM Program Retreat, NCAA Hall of Champions, Indianapolis In, Sept 8, 2016.
231. Bonewald LF, "The Aging Osteocyte: Current and Future Clinical Implications", 8th International Conference on Osteoporosis and Bone Research, Chongqing, China, October 21, 2016.
232. Bonewald LF, "The Indiana Center for Musculoskeletal Health: The Beginning", Anatomy and Cell Biology Fall Research Forum, Indianapolis, IN, Oct 28, 2016.
233. Bonewald LF, "The Role of the Aging Osteocyte in Bone-Muscle Crosstalk", Anatomy and Cell Biology Fall Research Forum, Indianapolis, IN, Oct 29, 2016.
234. Bonewald LF, "The Osteocyte; A Multifunctional Mechanosensory Bone Cell", Interdepartmentl Nutrition Program, Purdue University, Lafayette, IN. Nov. 18, 2016.
235. Bonewald LF, "The Osteocyte; A Multifunctional Mechanosensory Bone Cell", IUPUI Biology, Indianapolis, IN. Dec. 2, 2016.
236. Bonewald LF, "Does Bone Play a Role in Dementia?", IUPUI Motorneuron Club, Indianapolis, IN. Feb. 21, 2017.
237. Bonewald LF, "Bone-a "Hard" Tissue to Study", Nelson College for Girls, Science classes, Nelson New Zealand, March 10 and 20th, 2017.
238. Bonewald LF, "Osteocytes, Muscle, and Exercise: Role in Healthy Aging", AAA at Experimental Biology, Chicago, Il, April 22, 2017.
239. Bonewald LF, "The Effects of Voluntary Exercise on the Aging Osteocyte", Rush Univ Medical Ctr, Chicago, Il, April 24, 2017.
240. Bonewald LF "The Role of the Aging Osteocyte in the Musculoskeletal System", 12th ICCBMT meeting, Potsdam, Germany, May 29, 2017.
241. Bonewald LF "Osteocyte and Muscle Endocrine Interactions", CRTD, Dresden, Germany, June 2, 2017.
242. Bonewald LF "The Role of the Osteocyte in Muscle-Bone Crosstalk", Plenary lecture, 13th International Conference on Osteogenesis Imperfecta, Oslo, Norway, August 27, 2017.
243. Bonewald LF "Molecular Mechanisms involved in Muscle-Bone Crosstalk with Aging", ASBMR Aging Working Group, Sept. 10, 2017.
244. Bonewald LF "Molecular Mechanisms of Muscle-Bone Crosstalk". McGill University, Montreal, Canada, October 5, 2017.

245. Bonewald LF "Molecular Mechanisms of Muscle-Bone Crosstalk", 2017 International Workshop on Musculoskeletal and Neuronal Interactions, Montreal, Canada, October 6, 2017.
246. Bonewald LF "Moving Musculoskeletal Therapeutics to the Clinic", Orthoworx, Advancing Orthopedics for generations to come, Session 2, Disruptive Technologies, Wausaw, In. Nov. 8, 2017.
247. Bonewald LF "The Effects of Voluntary Exercise on Aging Osteocyte-Muscle Crosstalk", Buck Institute, San Francisco, Ca. Nov. 17, 2017
248. Bonewald LF "Osteocytes Regulate Distant Organ Function through Secreted Factors", Stem Cell Institute, University of Minnesota, Dec. 13, 2017.
249. Bonewald LF "Effects of Aging on Crosstalk between the Skeleton and Muscle", Bone and Teeth Gordon Conference, Galveston, Tx., Jan 27, 2018.
250. Bonewald LF "The Role of Osteoblasts and Osteocytes in Muscle-Bone Crosstalk", Osteogenesis Imperfecta Meeting, Chicago, IL, April 20, 2018.
251. Bonewald LF, "The Osteocyte-No Longer Hidden from Prying Eyes", The 15th Richard L. Cruess Lecture on Bone Structure and Metabolism, Montreal, Canada, June 14, 2018.
252. Bonewald LF, "Mechanisms whereby b-aminoisobutyric acid, BAIBA, a Muscle Metabolite, Protects Bone" Research Seminar, Shriners' Hospital, Montreal, Canada, June 15, 2018.
253. Bonewald LF, "The Effects on Aging on the Osteocyte". Bone Research Society meeting, Winchester, UK, June 28, 2018.
254. Bonewald LF, "Big Data Analyses in Musculoskeletal Sciences", Japanese Bone and Mineral Research Society, Nagasaki, Japan, July 26, 2018.
255. Bonewald LF, "The Effects of Aging on Muscle/Bone Crosstalk", Japanese Bone and Mineral Research Society, Nagasaki, Japan, July 27, 2018.
256. Bonewald LF, "The Osteocyte: From a cell that does nothing to a cell that does everything", Okayama University, Okayama, Japan, July 30, 2018.
257. Bonewald LF, "Clinical Highlights from the ASBMR 2017 Meeting". Tongji University, Shanghai, China, August 16, 2018.
258. Bonewald LF, "Vision for Musculoskeletal Health in Indiana", Indianapolis Rotary Club, Indianapolis, IN. Feb. 5, 2019.

259. Bonewald LF, "The Exercised Muscle Metabolite, L-BAIBA, targets the Osteocyte to Maintain Bone Mass", Chinese University of Hong Kong, Dept. of Orthopaedic Surgery, May 6, 2019.
260. Bonewald LF, workshop "So you want a CNS paper?" Chinese University of Hong Kong, Dept. of Orthopaedic Surgery, May 6, 2019.
261. Bonewald LF, "Why and How can the Osteocyte have so many Functions?" Chinese University of Hong Kong, Dept. of Orthopaedic Surgery, May 7, 2019.
262. Bonewald LF, "The Muscle Metabolite, beta-aminoisobutyric acid, is a Maintenance Factor for Bone Mass". The Center for Skeletal Health Research Symposium, Boston, MA, May 13, 2019.
263. Bonewald LF, "How muscle maintains bone mass and function", Korean Society for Bone and Mineral Research, Seoul, Korea, May 31, 2019.
264. Bonewald LF, "Osteocytes, their Biology and Function", Korean Society for Bone and Mineral Research, Seoul, Korea, June 1, 2019.
265. Bonewald LF, "The Role of Bone and Muscle Interactions in Maintaining Skeletal Health", Department of Food and Nutrition, Chonnam National University, Gwangju, Korea, June 3, 2019.
266. Bonewald, LF, "Osteocyte Osteolysis or Perilacunar Remodeling: Pathological versus Physiological" Chonnam National University, Gwangju, Korea,, School of Medicine, Chonnam National University, Gwangju, Korea, June 3, 2019.
267. Bonewald, LF, "Basic and Translational Highlights", American Society for Bone and Mineral Research Annual Meeting, Orlando, FL Sept. 20, 2019.
268. Bonewald, LF, "An Update on the ICMH", ACB&P Fall Research Forum, Indianapolis, In Oct. 11, 2019.
269. Bonewald, LF "Role and Function of the D and L enantiomers of β -aminoisobutyric acid, BAIBA, in the Musculoskeletal System". International Chemistry and Biology of Mineralized Tissues Meeting, Quebec, Canada, Oct. 22, 2019.
270. Bonewald, LF, "Update on Musculoskeletal Health", 7th Annual OsteoPETrosis Patients' Meeting, Indianapolis, IN. Oct. 26, 2019.
271. Bonewald, LF, "The Muscle Metabolite, β -aminoisobutyric acid, L-BAIBA, Enhances the Effects of Exercise", Cowell Lectureship, Purdue Univ. Lafayette, IN., Oct 30, 2019.
272. Bonewald, LF, "The Muscle Metabolite, β -amioisobutyric acid, BAIBA, enhances the effects of mechanical loading with age". Orthopaedic Research Society Annual Meeting, Phoenix, AZ, Feb. 8, 2020.

273. Bonewald, LF, "Basic and Translational Highlights", American Society for Bone and Mineral Research Annual Meeting, Virtual Symposium, Sept. 10, 2020.
274. Bonewald, LF, "The Osteocyte Continues to Amaze!", American College of Rheumatology, Nov. 9, 2020. (virtual)
275. Bonewald, LF, "The Kansas City Consortium for Musculoskeletal Diseases and Disorders: How it began", the 5th Annual KCMD Meeting, UMKC, December 4, 2020. (virtual)
276. Bonewald, LF, "Movers and Shakers-the Muscle Bone Endocrine Unit". Bradford Lectureship UCSF, January 27, 2021. (virtual)
277. Bonewald, LF, "The Generation of Tools to Study Osteocytes". Bradford Lectureship, UCSF, January 28, 2021. (virtual)
278. Bonewald, LF, "Muscle and Bone Interactions-Beyond the Mechanical" in Bone-Muscle Crosstalk and its Involvement in Craniofacial Bone Defect Repair IADR, July 24, 2021. (Virtual)
279. Bonewald, LF, "Major Players in Osteocyte and Muscle Crosstalk" The 17th Meeting of Bone Biology Forum, Tokyo, Japan, September 24, 2021. (Virtual).
280. Bonewald, LF "The Aging Osteocyte and Mechanosensitivity". The ASBMR Pre-Meeting on Aging, San Diego, Ca, September 30, 2021. (In person)
281. Bonewald, LF "Basic and Translational Highlights" The American Society for Bone and Mineral Research, San Diego, Ca, October 1, 2021. (In person)
282. Bonewald, LF, "Major Players in Osteocyte and Muscle Crosstalk" Harvard School of Dental Medicine, October 7, 2021. (Virtual)
283. Bonewald, LF "New Insights into the Osteocyte" The Korean College of Rheumatology, October 22, 2021 (Virtual).
284. Bonewald, LF "The Aging Osteocyte" The 9th Seoul International Congress of Endocrinology and Metabolism in conjunction with the 40th Annual Scientific Meeting of the Korean Endocrine Society (SICEM 2021). October 28, 2021 (Virtual).
285. Bonewald, LF "The Role of the Osteocyte in Muscle/Bone Crosstalk" Orthopaedic Research meeting, Indiana University, Nov. 16, 2021. (In person)
286. Bonewald, LF "The Role of Osteocytes in Bone and Non-Bone Disease". MSBI/MSM/MSW Grand Rounds, Mt Sinai, NY. Dec. 3, 2021 (Virtual).
287. Bonewald, LF "The Role of the Osteocyte in Muscle/Bone Crosstalk" Kogod Center on Aging Monday Seminar Series, Mayo Clinic, Dec. 13, 2021 (Virtual).

288. Bonewald, LF "The Role of the Osteocyte in Muscle/Bone Crosstalk" Washington University, Feb. 10, 2022. (In person).
289. Bonewald, LF "Science of bone development and its crosstalk with muscles" Medical Science Liaison Collegium, Mar. 1, 2022 (Virtual).
290. Bonewald, LF "The Role of the Aging Osteocyte in Bone/Muscle Crosstalk" Experimental Biology Meeting, Philadelphia, PA, Apr. 2, 2022 (In person).
291. Bonewald, LF "The Role of the Osteocyte in Muscle/Bone Crosstalk" Dept. of Nutritional Sciences, University of Texas, Austin, TX, Apr. 15, 2022 (In person).
292. Bonewald, LF "Mechanisms of muscle-bone interactions in development & aging" MSK Meeting, Atlanta, GA, Aug. 25, 2022 (In person).
293. Bonewald, LF "The Role of the Osteocyte in Muscle/Bone Crosstalk with Aging" Hazzard Symposium, Dec. 14, 2022 (Virtual).
294. Bonewald, LF "The Role of the Osteocyte in Muscle-bone Crosstalk with Aging" VCU, Richmond, VA, Mar. 21, 2023 (In person).
295. Bonewald, LF "Two Decades of Musculoskeletal Team Science" UMKC, Kansas City, MO, Aug. 15, 2023 (In person).
296. Bonewald, LF "Muscle and Bone -You Cannot Have One Without the Other" University of Colorado, Aurora, CO, Sept. 20, 2023 (In person).
297. Bonewald, LF "Are the Beneficial Effects of Exercise Mediated through Muscle/Bone Crosstalk?" NYU, New York, NY, Sept. 25, 2023 (In person).
298. Bonewald, LF "The new endocrinology of osteocytes" SfE BES Conference, Glasgow, UK, Nov. 10, 2023 (In person).
299. Bonewald, LF " β -aminoisobutyric acid, BAIBA, signaling through the Mas-Related G-Protein type D receptor, MRGPRD, to regulate Osteocyte Function" RUSH, Chicago, IL, Dec. 3, 2023 (In person).
300. Bonewald, LF "The Role of the Osteocyte in Mechnotransduction" and "Muscle and Bone: Partners for Life" OSF Bone Symposium, Napa, CA, Feb. 14, 2024 (In person).
301. Bonewald, LF "Use It or Lose It to Age: Bone and Muscle Communication" AIMM-ASBMR Conference, Snowmass, CO, Apr. 8, 2024 (In person).
302. Bonewald, LF "Sex Specific Effects of Factors responsible for Muscle/Bone Crosstalk" Univ of Michigan Oct. 3, 2024.
303. Bonewald, LF "The Early Days of Studying TGF β in Bone" 2nd Virtual BMP Forum, March 5, 2025

304. Bonewald, LF "Evolution and Function of Modern Day Mammalian Osteocytes" Comparative Cartilage & Bone Biology, Banyuls June 10-13, 2025.
305. Bonewald, LF "Sex Specific Effects of Muscle Factors on Osteocytes" 51st International Musculoskeletal Biology Workshop, Zermatt, Utah; July 21, 2025.
306. Bonewald LF "The Role of the Osteocyte in Supplying Calcium during Lactation" IUSM OB/GYN Departmental Research meeting, August 13, 2025.
307. Bonewald LF "How to Create an Integrative Program for Musculoskeletal Health+, ASBMR, Seattle, Washington, September 7, 2025.

Online Video Presentations

1. LF Bonewald, (2013), "Osteocyte Biology and the Role of Osteocytes in Bone Loss" in Bone Biology: Underlying Therapeutic Approaches Program, Endocrine Society Educational Activity, 2013. (online at <https://www.endocrine.org/membership/email-newsletters/clinical-essentials/2013/march>)
2. Bonewald L.F. (2015), "The osteocyte", in Compston, J. (ed.), Bone in Health and Disease: Bone Physiology and Osteoporosis, The Biomedical & Life Sciences Collection, Henry Stewart Talks Ltd, London (online at <https://hstalks.com/search/Bonewald/?biosci&subtype=TALK>) Henry Stewart Talks Series "Bone in Health and Disease: Bone Physiology and Osteoporosis", January 2015

B. Areas of Research Interest:

The investigator has maintained a long-term interest in growth factors and hormones, their structure-function relationship. She obtained training in the fields of endocrinology, immunology, microbiology, haematology and has been engaged in research on bone cell biology since 1986. She is a protein chemist and cell biologist. She has studied the role of transforming growth factor beta in bone, its latency and activation. The investigator has discovered that metabolites of 5-lipoxygenase, short lived organic compounds are potent stimulators of bone resorption and inhibitors of bone formation. She is also interested in the biology and function of the osteocyte and the effect of mechanical strain on osteocyte function and crosstalk between muscle and bone.

C. Current Projects:

The investigator has initiated a novel area of research into osteocyte biology. Osteocytes are the most abundant cell in bone and may be responsible for sensing mechanical stress and signaling osteoblasts to form new bone. She has established osteocyte-like cell lines from both human and murine sources and produced monoclonal antibodies specific for osteocytes. She was previously the Director of a program project entitled "The Effects of Mechanical Strain on Osteocyte Function". This program project is composed of four projects and three cores to

investigate the effects of mechanical strain on gap junctions and hemichannels, production of chemotaxis factors for osteoclast precursors and support of osteoclast formation and activation, osteocyte apoptosis and viability, factors responsible for osteocyte morphology and function such as E11/gp38 and Dmp1, the role of the osteocyte lacuno-canalicular network as an endocrine organ, and osteocyte capacity to remove and replace their perilacunar matrix. She has recently become interested in the crosstalk between bone and muscle and has proposed that osteocytes may send signals that influence muscle cell function. She is presently the Director of a program project "The Role of the Osteocyte in Muscle Regulation" NIH NIA. This program project is composed of four projects and three cores to investigate the crosstalk between muscle and bone and what happens to this cross-talk with aging.

D. Research Support:

National

NIH RO1 AR39357-02 09/01/87 – 08/31/91 \$195,000/yr
 "Mechanisms of TGFbeta activation in bone micro environment"
 Principal Investigator: Lynda F. Bonewald, Ph.D.

NCI PO1 CA40035-04 09/30/89 – 05/31/94 \$352,250/yr
 Mundy (Director and PI)
 Project 1 of a program project "Solid tumor associated with the humoral hypercalcemia of malignancy"
 Principal Investigator of project: Lynda F. Bonewald, Ph.D.

NIH PO1 DE08569-02 01/01/89 – 12/31/93 \$333,000/yr
 Mundy (Director and PI)
 Project 3 of a Program project: "The effects of TGFbeta related inflammatory cell products on bone cells"
 Principal Investigator of project: Lynda F. Bonewald, Ph.D.

NIH PO1 AR39529 04/01/90 – 03/31/93 \$143,428/yr
 Mundy (Director and PI)
 Project 3 of Program project: "The role of TGFbeta and its binding proteins in bone remodeling"
 Principal Investigator of project: Lynda F. Bonewald, Ph.D.

VA Merit Grant 04/04/92 – 03/31/95 \$273,900
 VA Merit Grant: "Hormonal regulation of bone latent forms of TGFbeta"
 Principal Investigator: Lynda F. Bonewald, Ph.D.

NIH RO1 DK46724 04/01/93 – 03/31/97 \$910,176
 "Study of 5-LO metabolites which activate osteoclasts"
 Principal Investigator: Lynda F. Bonewald, Ph.D.

NCI PO1 CA40035-01A1 06/01/95 – 05/31/99 \$682,294
 Mundy (Director and PI)
 "Effects of Tumors on the Skeleton - Core Laboratory (Unit A)
 Core Director: Lynda F. Bonewald, Ph.D.

UTHSCSA	08/1995	\$90,000
For equipment purchase only: Multiple Peptide Synthesizer (for use in the Institutional Protein Core Facility)		
Principal Investigator: Lynda F. Bonewald, Ph.D.		
NIH RO1 AR43775	07/01/96 – 06/31/00	\$885,931
“The role of the latent TGFbeta binding protein in new bone formation”		
Principal Investigator: Lynda F. Bonewald, Ph.D.		
VAMC/University funds \$48,000 for the purchase of an autoinjector, autocollector HPLC for the Institutional Protein Core Facility		
NIH RO1 AR 42372-05A2	07/01/98 – 06/31/02	\$154,285/yr
“Study of 5-lipoxygenase in Bone”		
Principal Investigator: Lynda F. Bonewald, Ph.D.		
Core Grant (5 P30 CA 54174-09)		
San Antonio Cancer Institute		\$50,110
NCI		
Principal Investigator: Lynda F. Bonewald, Ph.D.		
Percent Effort: 10%		
P01AR46798-01A1	06/01/01 – 05/31/06	\$4,101,870 Total Direct Cost
NIH		
“Effects of Mechanical Strain on Osteocyte Function”		
Director and Principal Investigator: Lynda F. Bonewald, Ph.D.		
T32K02 DE07294 Eick (PI)	07/01/01-06/30-06	\$5,303,599 Total Direct Cost
NIH/NIDCR		
Pre and Post Doctoral Training: UMKC School of Dentistry		
The goals of this project are to provide research training for individuals holding dental degrees so that they can become independent investigators holding Ph.D.s, to train graduate students from disciplines other than dentistry in oral biology or clinical research, and to provide short-term research experiences for undergraduate dental students and other graduate students.		
Role: Co-Investigator		
R01 Feng (PI)	07/01/04-06/30/08	\$358,808 Total Direct Cost
NIH/NIAMS		
“A Critical Role of DMP-1 in Mineralization”		
The goals of this proposal are to the function of proteolytic fragments of Dmp1 on mineralization.		
Role: Co-Investigator (10% effort)		
P01AR46798-06 Bonewald (PI)	04/01/06-05/31/12	\$6,592,306 Total Direct Cost
NIH		
“Osteocyte Biology and Effects of Mechanical Strain”		
Role: Director and PI		

RC2-AR058962 Bonewald (PI) 09/30/2009-09/29/2011 \$718,000 Total Direct Cost
NIH/NIAMS

Muscle-Bone Endocrine Axis

Current dogma assumes that the muscle-bone relationship is driven by mechanical factors, but we propose that bone can act as an endocrine organ to control muscle physiology and disease. A reciprocal relationship may also exist between muscle and bone. Therefore disease in either organ may have negative repercussions on the reciprocal organ through systemic endocrine factors that could be the target for prevention and therapeutic intervention. The goal of this application is to validate that an endocrine axis exists between muscle and bone.

Role: PI

0024497 Bonewald (PI) 04/01/2010-03/31/2015 \$63,494.00

Subcontract with University of Kansas - Detamore (PI)

NIH

Gradient-based Strategy for Osteochondral Regeneration

Direct efforts pertaining to bone biology, including but not limited to administering appropriate growth and differentiation signals and assessment of engineered constructs.

Role: PI

5P01AG039355 Bonewald (PI) 05/01/12-04/30/17 \$5,597,982
09/30/18-05/31/23 \$10,442,343

NIH/NIA

“Osteocyte Regulation of Bone/Muscle with Age”

The purpose of this application is to determine the molecular and cellular mechanisms whereby bone and muscle crosstalk and how this interaction is affected by aging.

P01 Diversity Supplement Bonewald (PI) 06/15/14 - 04/30/15 \$48,743
3P01AG039355-03S1

National Institute on Aging (NIA)

P01 title: Osteocyte Regulation of Bone/Muscle with Age

Supplement title: Research Supplements to Promote Diversity in Health-Related Research – student Julian Vallejo.

The goal is to provide Julian with a well-rounded and broad training as a scientist. Examination of the effects that conditioned media from old and young primary osteocytes may have on muscle myogenic differentiation and myoblast proliferation will be determined.

Role:PI/Mentor

P01 Supplement Bonewald (PI) 09/15/14 - 04/30/15 \$60,400
3P01AG039355-03S2

National Institute on Aging (NIA)

P01 title: Osteocyte Regulation of Bone/Muscle with Age

Osteoporosis and Sarcopenia are major clinical problems in the aging population and in many patients these two conditions occur concurrently. It has been well established that aging is associated with significant changes in the circadian output including decreased clock stability and phase shifts that lead to increased mis-alignment of the phases among the clocks in the body. Aging is also associated with decreased amplitude of the rhythms. A mouse model has been generated where a specific clock gene called Bmal, known to control circadian rhythm, is

deleted in muscle. These mice demonstrated reductions in both maximal force and passive tension properties with no loss in muscle mass. They also exhibited characteristics of accelerated aging. Surprisingly, these mice also exhibitdc a skeletal phenotype that is distinctly different and not seen in models of muscular dystrophies suggesting crosstalk between the defective muscle and bone. In this supplement, we propose to characterize the skeletal phenotype to provide the basis for future studies to identify the molecular mechanisms responsible for the skeletal phenotype and the advanced aging.

P01 Animal Supplement Bonewald (PI) 09/01/17 – 09/29/18 \$134,734
3P01AG039355-05S1

National Institute on Aging (NIA)

P01 title: Osteocyte Regulation of Bone/Muscle with Age

This supplement is to support animal experiment costs between project award periods.

P01 Bridge Funding Bonewald (PI) 09/15/18 – 1/14/19 \$104,124
3P01AG039355-05S2

National Institute on Aging (NIA)

P01 title: Osteocyte Regulation of Bone/Muscle with Age

Application for the continuation of funds from supplement 3P01AG039355-05S1 until the beginning of the program project's renewal start on September 30, 2018.

P01 Supplement Bonewald (PI) 07/1/2020 – 6/30/2021 \$91,357
7P01AG039355-07S1

National Institute on Aging (NIH)

PO1 title: Osteocyte Regulation of Bone/Muscle with Age

A pilot study to determine if L-beta aminoisobutyric acid, L-BAIBA, can serve as a marker of muscle and mitochondrial function.

PA-10-071: NIH Support for Conferences and Scientific Meetings

(R-13) Bone and Skeletal Muscle Interactions \$130,000 Total Direct Cost

NIAMS, NIA, NICHD, NIDCR, and the Office of Disease Prevention

Organizing Committee: Co-Chairs Lynda Bonewald and Roger Fielding, Tom Clemens, Doug Kiel, Charlotte Peterson, Karyn Esser, Eric Orwoll, Regis O'Keefe

Annual health care costs for musculoskeletal disease are in the billions. Sarcopenia, muscle wasting, results in poor balance, reduced walking speed, falls, and fractures and can be thought of as the muscular equivalent of osteoporosis. Although it is well recognized that muscle and bones are responsive to exercise, we know little regarding cellular and molecular interactions between these two tissues. Specific aims addressed at this meeting include: to understand the close association between muscle and bone during development and growth and how nutrition and physical activity affects general health, to dissect the role of aging in the association between sarcopenia and osteoporosis, to identify molecular and cellular mechanisms responsible for the close association between muscle and bone, to define defective mechanotransduction in both muscle and bone, to determine if muscle communicates with bone independent of mechanical loading, to identify joint approaches to prevent, treat, and reverse or regenerate muscle and bone loss, and to assess the feasibility of establishing a combined research field that integrates both muscle and bone physiology. The ultimate goal is to generate a better understanding of how these two tissues integrate and crosstalk in both

health and disease in order to stimulate new therapeutic strategies to enhance and maintain musculoskeletal health.

NIH R13 AR065905-01 NIH Support for Conferences and Scientific Meetings

\$40,000 Total Direct Cost

“ ASBMR Symposium : Cutting Edge Discoveries in Muscle Biology, Disease and Therapeutics”

Principal Investigator: Bonewald, Lynda F

Institution: AMERICAN SOCIETY FOR BONE AND MINERAL RESEARCH

R21 AR071536 Dallas, SL (PI) 04/01/2017 – 03/31/2019

NIH/NIAMS

Extracellular Vesicle Mediated Cell-Cell Communication in Bone

This project explores the role of extracellular vesicles (EV) produced by osteocytes on the function of osteoblasts and osteoclasts and their effects on bone formation in vivo. The project also uses live cell imaging to determine the kinetics of EV release and uptake by osteoblasts in vitro and in vivo and uses proteomics and miRNA profiling to determine the cargo of osteocyte derived EV. We will also examine whether the cargo of osteocyte EV is altered by external stimuli, such as PTH and oxidative stress and whether osteocyte EV can transfer changes in gene expression induced by these stimuli to a naïve population of cells.

Role: Co-I (5%)

R61AR073551 Robling, Alexander (PI) 03/01/18 – 02/29/20

NIH/NIAMS

Project Title: In vivo discovery of the osteocyte protein secretome: identification of novel factors and functions

Role: Co-I (5%)

1R13AG063480-01 Bonewald, Lynda (PI) 04/01/2019 – 03/31/2020

NIH/NIA/NICHD/NIDDK/NIAMS

\$62,000

Project Title: Bone and Muscle Interaction: the Mechanical and Beyond

Role: PI

This supported an international meeting covering the topic of Muscle and Bone Interactions and brought together researchers from around the world.

R01 AR079379 (Bonetto- PI, Bonewald- Co-I) 07/12/2021-5/31/2026

NIH/NIAMS

Targeting RANKL for the treatment of muscle and bone defects in cachexia

R01 AG076569 Prideaux, Kitase (Multi-PI), Bonewald, (Co-I) 10/2022-05/2027
NIA

Major Goals: To investigate the role of energy metabolism in osteocytes, key regulatory bone cells, in response to mechanical loading and during aging.

Title: Osteocyte Energy Metabolism in Aging

3PO1AG039355-10S1 Bonewald (PI) 9/01/2024-5/31/25

NIH-NIA

Major Goal: to maintain and characterize the novel Sost-PA-ERT2 Cre mouse model for specific gene targeting in mature osteocytes

Title: Supplement to support research animals for P01AG393355

Role: PI

P30AR083854

Robling (PI)

09/02/2024-7/31/2029

NIH-NIAMS

Role: Associate Director of the Administrative Core

State

Center Award 09-1101 Bonewald (PI) 01/01/09-12/31/11 \$840,156

UMKC Center of Excellence in Mineralized Tissues

The Central Goal for the UMKC CEMT is to form a multidisciplinary and interdisciplinary center that would include investigators from the Schools of Dentistry, Medicine, Nursing, and Computing and Engineering to focus on dental and musculoskeletal health. The UMKC CEMT would integrate investigators, whether basic or clinical, into a powerful translational team to prevent and treat diseases of mineralized tissue, which include teeth, cartilage, bone, and muscle. This goal aligns with the NIH roadmap initiative and focuses on mineralized tissue research with regards to obesity, cancer, osteoporosis, bone trauma, aging, metabolic bone disease, and diseases of oral tissue. Not only could findings be applied to biomaterials and composite research, medical devices, diagnostics, and clinical imaging, but can also be expanded to veterinary practice and diagnostics and treatment of animal dental and bone disease.

Role: Center PI

13234

Eick (PI)

01/01/2008-12/31/2010

\$635,498

MO Life Science Research Board

Bone Fracture Repair in Animals Using a New Bone Cement

The purpose of this grant is to develop and determine the efficacy of a new generation of resin/composites in fracture and prosthetic device stabilization. Hypothesis: We propose that the newly developed silorane resins and composites will be significantly superior to PMMA bone resins and composites currently used for orthopedic stabilization.

Role: Co-PI

University

Institutional Review Grants Committee 03/01/87 – 02/28/88 \$6,000

"Mechanism of transforming growth factor beta activation in bone remodeling"

Role:PI LF Bonewald

Institutional Cancer Research Committee 10/01/87 – 09/30/88 \$6,000

"Identification of a tumor factor which stimulates cytokine production by cells of the immune system"

Role:PI LF Bonewald

University PUF Funds

01/1998

\$350,000

for equipment replacement in the Institutional Protein Core Facility

Interdepartmental Research Initiative Award	11/1997	\$32,936
"Development of Peptides to investigate TGF β Function"		
with Drs. Hinck and Guise		

Barbara H. Bowman , Ph.D.,	07/01/1998 – 06/31/1999	\$25,000
Award in Cancer Prevention Research		
"Prostate specific antigen activation of Latent Transforming Growth Factor beta -1"		

UMKC Research Equipment Committee	08/28/2003	\$90,772
"Addition of Liquid Chromatography and Nanospray Capabilities to the QStar Mass Spectrometer"		

UM Intellectual Property Fast Track Initiative	07/01/2014	\$50,000
<i>"Curing Bone Infection While Stabilizing Implants"</i>		

Tumor Matrix and Metastasis Program, TMM, New Technologies Pilot Funding 9/01/24
Major goal: to develop both muscle and osteocyte single nuclei isolation procedures to determine the role of osteocytes in inducing muscle atrophy in Head and Neck Cancer.
Title: "The role of the osteocyte in mediating muscle atrophy in Head and Neck Cancer".
Role: PI \$50,000

Other

Kansas City Area Life Sciences Institute scientific grant	12/1/03-11/30/04	\$25,000
"Identification of Osteocyte Specific Antigens"		

Kansas City Area Life Sciences Institute Equipment grant	12/01/04	\$160,000
KCALSI Shared Proteomics Equipment, Genomic Solutions "ProPic and ProGest"		

Mentor for Donna Pacicca for CMH Internal Grant	2005	\$12,000
---	------	----------

Mentor for Tarak Srivastava for Marion Merrell Dow Foundations Slinical Scholar Award	2006	\$35,000
---	------	----------

Mentor for Vania Castro, Educational Grant from Proctor and Gamble,	2006	\$15,000
---	------	----------

USAMRMC PROPOSAL #07040004	Eick (PI)	09/15/2007-09/14/2011	\$674,578
Department of Defense			

Bone Repair and Military Readiness

Specific Aims (Technical Objectives):

1. Develop and synthesize resins and fillers suitable for testing in bone stabilization models.
2. Characterize the physical, mechanical, and biocompatibility properties of the newly developed bone stabilizers.
3. Determine the effects of the newly developed bone stabilizers on biological response of bone cells and effects on bone stabilization, tissue healing, formation, and osteointegration. We propose that bone stabilizers that can act as "spacers" and "spot welders" can be made that will not only stabilize the fracture and be biocompatible, but will enhance fracture repair and the osteointegration of prosthetic devices. In so doing, the quality of life for injured soldiers as well as for other severely injured Americans will be enhanced. The general public will benefit from the results of this research project in that severely injured patients from

car accidents and other traumatic events will be treated in a superior manner compared to current stabilization methods.

Role: Co-PI

Kansas City Area Life Sciences Institute scientific grant 12/01/08-11/30/08 \$25,000
Co-PI with Darryl Quarles, KUMC

W81XWH-11-1-0805 Eick, Bonewald, (PI's) 09/20/11-09/19/13 \$758,320
DOD

Bone Repair and Military Readiness

The intent of this project is to optimize the formulation of bone cement that will be an improvement over existing bone cements. This will be accomplished by testing improved formulations based on improved physical properties such as reduced exotherm and reduced shrinkage for enhanced biological function. These include optimal biological properties, such as lack of toxicity, capacity to support bone cells growth, and capacity to integrate with bone and prosthetic material without loosening or the generation of wear debris. The expected outcomes represent a fifty-year advancement and provide an improved alternative to commercial bone cements. The proposed work is innovative because it will provide a biocompatible alternative to PMMA-based bone cements while maintaining excellent mechanical properties. This change in formulation from toxic methyl methacrylates to biocompatible siloranes represents a monumental four-decade step forward in orthopedic biomaterials. Once the properties of the new bone cement have been developed and tested in vivo in animal models, future grant applications will propose expansion of testing in the pig model and eventually clinical trials in humans. The expected outcomes are extremely important because they will provide a better alternative and expand the possibilities for new applications that could not be envisioned previously due to the limitations of PMMA containing bone cement.

Role: PI

W81XWH-10-1-0799 Eick, Bonewald, Day, Rahaman (PI's) 9/25/10-04/24/12 \$626,598
DOD

Consortium for Bone and Tissue Repair and Regeneration

This project is a collaborative research effort by faculty at UMKC and Missouri S&T for the purpose of creating three-dimensional (3-D) scaffolds composed of bioactive glass fibers, micro-spheres, and particles whose unique structure and properties are optimized for the repair and regeneration of diseased or damaged bones in humans. In addition to being designed to be bioactive and reacting in a biologically beneficial manner with tissue fluids, these 3-D scaffolds will also (1) provide surface features such as high surface area nanostructured hydroxyapatite (HA) that promote cell attachment and proliferation, (2) contain nano- and micro-sized pores conducive to cell growth and function, and (3) release trace elements and protein growth factors that are known to be biologically important to the development of healthy bone.

Role: PI

Patents:

1. Suppression of bone resorption by quinolines US Patent number 5534524
2. Use of 5LO inhibitors to prevent or treat bone loss. "*Suppression by 5-lipoxygenase inhibitors of bone resorption*". US patent number 6060500 and 6455541

2. Use of matrix vesicles and 1,25,(OH)₂D₃ for delivery of growth factors. “*Activation of Growth Factors by Matrix Vesicles*” US patent number 5656450.
3. Establishment of murine osteocyte cell lines and generation of monoclonal antibodies specific for osteocytes. “*Osteocyte Cell Lines*” US Patent number 6358737.
4. Use of CD40L to block bone cell apoptosis-“*CD40 Ligand and CD40 Agonist Compositions and Methods of Use*” US Patent number 6482411B1
5. Diagnostic Methods for the Detection of Congenital Bone Defects: Filed August 17, 2007. Publication number 20100221707.
6. Cell Lines to Study Regulation of Bone Formation Filed August 16, 2010-no patent to date
7. Late osteoblast/early osteocyte-like cell line stably expressing Collagen-GFP and Collagen-mCherry Fusion Proteins for Visualizing Collagen Assembly in Living Cells. Filed August 16, 2010.-no patent to date
8. Biomaterials compositions. US Patent #9186302
9. Biomaterials compositions. US Patent # 9770528
10. Methods for preventing and/or treating bone loss conditions by modulating irisin. Publication #20210063414.
11. Methods of treating phosphate concentration disorders with L-BAIBA. Publication #20220347141

IV. SERVICE

A. Professional Affiliations:

1. Current Professional and Scientific Organizations and Societies:

1986-1996	The Protein Society
1986-present	American Society for Bone and Mineral Research
1987-2001	Womens Faculty Association-UTHSCSA
1988-2017	Association of Biomolecular Research Facilities (ABRF)
1988-2001	Texas Mineralized Tissue Society
1990-present	American Association for the Advancement of Science
1993-2001	San Antonio Cancer Center
1994-1998	ABRF Peptide Synthesis Committee
2000-2003	ABRF Peptide Standard Committee
2002-2016	International and the American Association for Dental Research
2013-present	International Federation of Musculoskeletal Societies
2014-2024	Society for Experimental Biology and Medicine

2. Past and Current Positions and/or Offices Held in Professional Organizations:

1995-1998	Council Member, American Society for Bone and Mineral Research
1996-1998	Chair, Peptide Synthesis Research Committee, Association of Biomolecular Resource Facilities
1996	Nominating Committee, American Society for Bone and Mineral Research
1991-97,99-04	Program Committee, American Society for Bone and Mineral Research
1997-2002	Member, Executive Board, Association of Biomolecular Resource Facilities
1998-2000	President, Association of Biomolecular Resource Facilities, ABRF
1999-2004	NIH NIDCR Board of Scientific Counselors
1999-2000	Fellowship Committee, American Society for Bone and Mineral Research
1999-2010	Editorial Board, <i>Journal of Biomolecular Techniques</i>

2001-2003	Chair, Publications Cmte., <i>Journal of Biomolecular Techniques</i>
2001-2004	Chair, NIDCR Board of Scientific Counselors
2001-2004	Member, Public Affairs Executive Committee, FASEB
2001-2003	Member, National Osteoporosis Foundation, Scientific Advisory Board
2002	Chair, Program Committee, "Osteoblasts", American Society for Bone and Mineral Research
2002-2005	Member, Publications Committee, <i>Journal of Bone and Mineral Research</i>
2002-2005	Member, Editorial Board, <i>Journal of Dental Research</i>
2004	FASEB Communications Committee
2005-2008	Editorial Board, <i>Journal of Bone and Mineral Research</i>
2005-2008	Chair, ASBMR Advocacy committee
2006-present	Associate Editor, <i>Experimental Biology and Medicine</i>
2007, 2008	Member, Harold Frost Awards Committee
2008-2014	Associate Editor, <i>Journal of Bone and Mineral Research</i>
2008-2009	Co-Organizer, 2009 American Society for Bone and Mineral Research Meeting
2008-2010	Secretary/Treasurer, American Society for Bone and Mineral Research
2011-2012	President-elect, American Society for Bone and Mineral Research
2012-2013	President, American Society for Bone and Mineral Research, ASBMR
2013-2014	Past-President, American Society for Bone and Mineral Research
2013-2016	Co-Chair, International Federation of Musculoskeletal Societies, IFMRS
2013-present	Chair, Big Data Working Group, IFMRS
2013-present	Associate Editor-in-Chief, <i>Bone Research</i>
2014	Chair, Nominating Committee, ASBMR
2015-2016	Member, Government Affairs Committee, AADR
2015	Member, NIH Common Fund Workshop "Innovate to Accelerate"
2018-19	Guest Editor, Bone Special Issue, Musculoskeletal Aging.

3. Other Professional Activities:

Reviewer for Study Sections

Reviewer for NIH Conference Call, December 5, 1989
 External reviewer for VA Merit Review; 1989
 Reviewer for National Osteoporosis Foundation; 1989, 1990, 1991, 1999, 2000
 NIH Study Section - June 1991 - RFA Clinical Osteoporosis
 VA Study Section - April 1992
 Clinical Sciences Study Section NIH - July 1992,* Member 1993 - 1994
 NIH Study Section - April 1993, October 1993
 Ad-hoc Reviewer - NCI RFA CA93-37, 1994
 Reviewer The Israel Science Foundation, May 1995
 Medical Research Council of Canada, May 1995
 Reviewer Defense Women's Health Research Extramural Program, Baltimore, M.D.,
 January 1995
 Reviewer Oral Biology and Medicine Study Section-2, April 15, 1996
 Reviewer Program Project Review - Special Emphasis Study Section-NIH, April 1, 1997
 Reviewer Program Project Review- Special Emphasis Study Section-NIH, July 21, 1997
 Reviewer RO1-Special Emphasis Study Section-NIH, August 27, 1997

Reviewer	Bone Health and Military Medical Readiness-Matrix Synthesis Study Section, DC, Nov 19-21, 1997
Reviewer	Program Project Review – NIH-December 19, 1997
Reviewer	P30 Center Grants, NIH, November 17-19, 1998
Reviewer	NIH Special Emphasis Panel ZRG1 SSS-5-09, March 30-31, 2000
Reviewer	NIH Special Review-Conference Call, April 18, 2000
Reviewer	American Institute of Biological Sciences, June, 2000
Reviewer	Bioanalytical Engineering and Chemistry Special Emphasis Panel, Feb, 2001
Reviewer	Program Project Review-Special Emphasis Study Section-NIH, April 26, 2001
Reviewer	NIDCR K12 Mentored Clinical Scientists –Nov 1, 2001
Reviewer	USAMRMC, DOD, 2002 Prostate Cancer Research Program, Pathobiology #2, July 1-2, 2002
Reviewer	Program Project Review-NIAMS-Nov. 28, 2002
Chair	AMS Conflict Teleconference Apr. 18, 2003
Reviewer	NIAMS ZAR1 RJB-E Microarray Awards-Aug 21, 22, 2003
Reviewer	VA Mail Review 9-2-2003
Reviewer	NIH Pathobiochemistry Study Section 9-16-03
Reviewer	Univ Alabama at Birmingham Center for Metabolic Bone Disease, April 21, 2004.
Reviewer	NIH-Multidisciplinary Clinical Research Career Development Program, Jun 23-24, 2004.
Reviewer	Program Project Review-NIA-July 7,8, 2005
Reviewer	Program Project Review-NIA-July 10, 2006
Reviewer	Musculoskeletal Biology and Tissue Engineering, 7/14/06
Reviewer	Program Project Review-NIA-May 21, 2007
Reviewer	T32, ZDE1 MK 12 1, Feb 25, 2008
Reviewer	CBTRR UM-Rolla, April 28, 2008
Reviewer	Univ of Alabama CBM.D. May 11, 2008
Reviewer	Univ of Mo Research Board 5-18-2008
Reviewer	NIH ZRG1 MOSS-K June 20, 2008
Chair	NIH ZRG1 MOSS-K Feb. 18, 2009
Reviewer	Program Project ReviewZRA1 MLB-F M2 1-NIAMS- April 22,2009
Reviewer	NIH NIAMS ZAR1 EHB-F(M2)2-Wash, DC, July 28, 2009
Reviewer	NIH NIDCR MOSS-K(95)R, July 27-28, 2009.
Chair	Program Project Review ZAG1 ZIJ-8 J1 NIA Oct. 20, 2009.
Chair	NIA Special RFA, Bethesda, MD. Mar 23, 2011
Reviewer	Telemedicine and Advanced Technology Research Center (TATRC) West Coast Field Office April 25, 2011.
Reviewer	UMRB April, 2011
Reviewer	Alliance for Nano Health FY10, 2012
Reviewer	NASA REAP Proposals, 2012
Reviewer	ASBMR GAP Awards, 2014
Reviewer	Lied Basic Science Grant Program, 2014
Reviewer	The Israel Science Foundation, 2014
Reviewer	NIH ZRG1-R03 PAR-14-022 Juvenile Protective Factors and Their Effects on Aging (R03), 2014
Reviewer	NIH ZAG1-713-7, 2014
Reviewer	Arthritis Research – UK, 2014
Reviewer	WCGME-KBA Rising Star Review, 2014

Chair	Program Project Review ZAG1 ZIJ-7, NIA, May 4, 2016
Reviewer	NIH/CASIS Translational Research in Space UG3/UH3, April 3, 2017
Reviewer	NASA TRI Preserving Muscle Mass Panel Review, July 27, 2017
Reviewer	Science Foundation of Ireland, "Mechanobiology based approaches for osteoporosis therapeutics, National University of Ireland, Galway, Nov. 6, 2017.
Reviewer	Ancillary Studies Review 2019/01 Council ZAR1 HL M1 1, 11/02/2018
Reviewer	NIH NIA second stage P01 review panel, 12/3/19
Reviewer	NIH NIA IRG/SRG: ZAG1 ZIJ-U, 3/24/2020
Reviewer	NIH NIAMS-Mechanistic Ancillary 2020-10 Meeting 7/1/2020
Member	NIH NIAMS AMS Oct 2020-Oct 2024
Reviewer	NIH NIAMS ZRG1 F108-Q 20 L, 11/14-15/2024
Reviewer	IUSCCC JFSIG/Early Career RFA Review
Reviewer	NIH Center for Scientific Review Special Emphasis Panel CENTER FOR SCIENTIFIC REVIEW ZRG1 F10B-Q (20) Fellowships: Musculoskeletal, Skin and Oral Sciences 07/15/2025 - 07/16/2025

Reviewer for Journals:

Analytical Chemistry
 Annals of Biomedical Engineering
 Bone
 Bone Research
 Bone and Mineral
 Bone Metabolism, Clinical and Experimental
 Calcified Tissue International
 Cell
 Cell Metabolism
 Clinical Orthopaedics and Related Research
 Developmental Biology
 European Journal of Endocrinology
 Endocrinology
 Gastroenterology
 Growth Factors
 Journal of Biological Chemistry
 Journal of Biomedical Materials Research
 Journal of Bone and Mineral Research
 Journal of Cellular Physiology
 Journal of Clinical Endocrinology & Metabolism
 Journal of Clinical Investigation
 Journal for Dental Research
 Journal of Immunology
 Journal of Laboratory Investigation
 Journal of Orthopaedic Research
 Matrix Biology
 Metabolism
 Metabolism, Clinical and Experimental
 Molecular Endocrinology
 Molecular and Cellular Proteomics

Nature Biotechnology
Nature Genetics
Nature Medicine
Prostaglandins
Proteomics
Science
Stem Cells

Sessions chaired at International, National, State, and Local Meetings:

1. Hormones/Factors influencing bone formation/resorption. New Orleans, LA American Society for Bone and Mineral Research, June 7, 1988.
2. Cell Biology, Texas Mineralized Tissue Society, Galveston, Texas, April 22, 1991.
3. Growth factors Session IV. San Antonio, Texas Mineralized Tissue Society, (TMTS) May 21, 1992.
4. Bone, Cartilage and Matrix Proteins. Minneapolis, MN American Society for Bone and Mineral Research (ASBMR). October 3, 1992.
5. Cell Biology, TMTS, Houston, TX. May 4-7, 1993.
6. Bone Cell Biology, American Society for Bone and Mineral Research, Kansas City, MO, September 10, 1994.
7. Cell Regulation of Extracellular Matrix Synthesis, TMTS, Galveston, TX. April 28-30, 1995.
8. Bone Metastasis: A new frontier in cancer research, ASBMR, Baltimore, M.D., September 9, 1995.
9. Plenary Session II, ASBMR, Seattle, WA, September 9, 1996.
10. Workshop on combinatorial libraries, Association of Biomolecular Resource Facilities (ABRF)., Baltimore, M.D., February 12, 1997.
11. Peptides with novel chemistries and bioactivity, Association of Biomolecular Resource Facilities, San Diego, Ca, March 24, 1998
12. Bone Morphogenetic Proteins, ASBMB/ASBMR Fall Symposium "Regulation of Bone Formation" Taos, NM, October 17, 1998.
13. Bone Cells: Osteoblasts II, ASBMR, St Louis, Mo, Oct 2, 1999.
14. Extracellular Matrix and Signaling, TMTS, Dallas, TX July 22, 2000.
15. Molecular Medicine, ABRF, San Diego, Ca Feb. 26, 2001.
16. Mechanical Loading and Exercise, ASBMR, Phoenix, Ax, Oct 13, 2001
17. Mineralization: Mechanical/Morphological, AADR, March 15, 2003.
18. Scientific Advisory Board for the KCALSI Proteomics Consortium, Oct 19-21, 2003.
19. Session "Biological Validation of Genomics/Proteomics Generated Hypothesis", ABRF, Savannah, Ga., Feb. 7, 2005.
20. DMP1 and DSPP, SIBLING Gordon Conference, Big Sky, Montana, Sept. 12, 2005
21. Mechanical Loading and Exercise, ASBMR, Nashville, TN, Sept. 25, 2005.
22. Matrix Proteins in Bone Formation, BRS-BORS, Southampton, UK, July 6, 2006.
23. Basic 2, IBMS, Davos, Switzerland, March 10, 2008
24. Bone and Osteoporosis, Mechanobiology Keystone Meeting, Taos, NM. Jan 19, 2009.
25. Hot Topics, NYAS Skeletal Biology and Medicine Conference, NY, NY May 2, 2009.
26. Intracellular Signaling of Bone Cells, The 26th Naito Conference on Osteobiology, Hyogo, Japan Nov. 6, 2009.
27. Building innovative corporate-academic partnerships: What is needed? Missouri

- Regional Life Sciences Summit, Kansas City, Mo. Mar 8, 2010.
28. Biomedical Tissue Engineering: Where do we go in the future? Missouri Regional Life Sciences Summit, Kansas City, Mo. Mar 9, 2010.
 29. Muscle-Bone Crosstalk at AIMM Meeting, Snowmass, Co., April 5, 2011.
 30. Bone Biology Workshop 1 at Osteoporosis Global Therapeutic Expert Forum, Washington, DC, April 19-20, 2012.
 31. Osteocytes: An Update at the Sun Valley Workshop, Sun Valley, Idaho, Aug. 8, 2012.
 32. Symposium 5: Muscle and Bone, Japanese Bone and Mineral Society:IBMR meeting, May 31, 2013.
 33. Osteoblasts and Osteocytes: International Conference on the Chemistry and Biology of Mineralized Tissues, Lake Geneva, WI, Oct. 30, 2013.
 34. Osteoclast Biology: 2nd Immunobone International Symposium, Potsdam, Germany, October 14, 2014.
 35. Osteocyte Dynamics and Communication: Bones and Teeth Gordon Conference, Galveston, Texas Feb 15, 2016.
 36. Skeletal Aging and Regeneration, Bones and Teeth Gordon Conference, Galveston, Texas January 29, 2018.
 37. "Meet the Editor – top tips for getting your manuscript published", Bone Research Society, Winchester, UK, June 26, 2018.
 38. Single Cell Genomics, ASBMR, Montreal, CA, Sept. 28, 2018.
 39. Genomics for Clinicians, ASBMR, Montreal, CA, Sept 30, 2018.
 40. Aging Workshop, ASBMR Montreal, CA, Sept. 30, 2018.
 41. Aging Working Group, ASBMR, Orlando, FL, Sept 22, 2019.
 42. Physiology of the Adult Skeleton session of the Bones and Teeth Gordon Conference, Galveston, TX, Feb. 4, 2020.
 43. Panelist with Fred Cate and John Baumann for Heather Pierce, Senior Director for Science Policy and Regulatory Counsel for AAMC. Mar 3, 2020.
 44. Aging Working Group Meeting, ASBMR Virtual Meeting, Sept 14, 2020.
 45. IFMRS MSK-KP portal, ASBMR Virtual Meeting, Sept 15, 2020.

Meeting Organizer

May 1994	Scientific Director and Coordinator - Texas Mineralized Tissue Society, San Antonio, Texas
Aug 1997	Co-Organizer for the Texas Mineralized Tissue Society, Corpus Christi, Texas
Aug 1998	Co-Organizer for the Texas Mineralized Tissue Society, Austin, Texas
Sept 2005	Co-Organizer for the Bone Fluid Flow Workshop, New York
Oct 2006	Co-Organizer for the UMKC SOD 125 th Anniversary Symposium on Oral and Craniofacial Biology, Kansas City, Mo.
Nov, 2007	Co-Organizer for the 9th International Conference on the Chemistry and Biology of Mineralized Tissue, ICCMBT meeting, Lakeway, Texas.
Sep, 2009	Co-Organizer for the 31 st meeting of the American Society for Bone and Mineral Research, Denver, Co.
Mar. 2010	Co-Organizer for the Missouri Regional Life Sciences Summit, Animal to Human Health Collaborations, Kansas City, Mo.
July 2011	New Frontiers in Muscle and Mineralized Tissues Symposium, Kansas City, MO.

July 2012 Muscle-Bone Interaction, An American Society for Bone and Mineral Research Topical meeting, Kansas City, MO.

Oct 2013 Muscle Day for the Annual ASBMR meeting. Baltimore, MD.

Oct 2014 Bone Cement Symposium, Kaufmann Center, Oct. 4, 2014, Kansas City, Mo.

Sep 2014 Co-Chair Encode Session, ASBMR Annual Meeting - The Role of ENCODE in Advancing Musculoskeletal Research

Aug 2019 "Bone and Muscle Interactions: The Mechanical and Beyond". Co-Organizer with Frank Rauch, Indianapolis, In Aug. 16-19. Abstracts published: "The Bone and Muscle Interactions: The Mechanical and Beyond" Meeting August 2019.Vol 3, Issue S4, 2019. <https://doi.org/10.1002/jbm4.10257>

Workshop Organizer

Aug 15, 2000 Use of the Molecular Approach to answer questions in skeletal biology. 39th Internatl Sun Valley Hard Tissue Meeting Aug 14-18th, 2000 Sun Valley, Idaho.

Aug 8, 2001 Osteocytes: Role in Cell Signaling and Mechanical Stimulus Detection in Bone, 31st Sun Valley Hard Tissue Biology Workshop, Aug 6-10th, 2001 Sun Valley, Id.

Aug 2, 2005 Osteocytes and Mechanotransduction, 35th Sun Valley Workshop on Skeletal Tissue Biology, July 31st-Aug 3, 2005.

Nov 5, 2007 Mechanisms of Biomineralization, 9th International Conference on the Chemistry and Biology of Mineralized Tissue, ICCBMT, Lakeway, Texas

Sept 11, 2022 Effects of Aging on Marrow and Bone Interactions, 44th ASBMR Annual Meeting, Austin, Texas

Meeting Representative

April 4, 2003 NIDCR Strategic Plan Stakeholders Meeting, Representative, NIDCR Board of Scientific Counselors.

Oct. 27, 2004 NIAMS Long Range Planning Panel on Research In Bone Biology and Bone Diseases, Director, Steve Katz

Feb. 27, 2006 NIAMS Long Range Planning Meeting on Mechanotransduction, Director, Steve Katz

Dec. 1-2, 2008 Co-Chair with Director Steve Katz and Bill Sharrock, NIAMS long Range Planning Meeting, NIH

Dec. 14, 2012 Mentor, NIAMS Forum for Clinical Mentored K Awardees, NIH.

Sept. 2, 2016 Speaker, NIH NIA Advances and Gaps in Musculoskeletal Biology, Bethesda, MD.

Service on Advisory Boards

2004-2007	Program Project, PI. Gregory Mundy "Effects of Tumors on the Skeleton", San Antonio, TX
2004-2009	Program Project, PI, David Roodman, Pittsburgh, PA.
2005-2008	Center, PI Jay McDonald, Univ of Alabama Center for Metabolic Bone Disease, Birmingham, Al.
2006-2008	Delaware NIH INBRE, David S. Weir, Delaware Biotechnology Institute, DE.
2007-2016	Kansas University Medical Center, CTSA, Internal Advisory Committee
2012-2015	EAB Musculoskeletal Research Center, Washington University, St. Louis, MO.
2012-present	SAB 11th International Conference on the Chemistry and Biology of Mineralized Tissues (ICCMBT)
2014-2018	EAB for the Cancer Metastasis to Bone Program Project, Director, David Roodman, Indianapolis, IN.
2019-present	EAB for Program Project on Aging, Director, Sundeep Khosla.
2023-present	RUSH University Medical Center, External Advisory Board for C-COMP, Director, Anne-Marie Malfait,

Lectures to the Institution

Department of Medicine Research Conference UTHSCSA, 1988
San Antonio Cancer Institute Cancer Day, 1989
Department of Biochemistry Research Conference, 1991
Department of Pediatric Medicine Research Conference, 1994
Endocrinology Laboratory Seminar Series, yearly
Department of Medicine Research Conference, Jan. 20, 1998
Department of Medicine Research Conference, Nov. 16, 2000
Department of Oral Biology UMKC, Dec 12, 2001
Department of Biological Sciences UMKC, Oct. 20, 2003
Department of Pharmacology UMKC, Nov. 19, 2003.
Department of Oral Biology, UMKC, Mar. 17, 2005
UMKC SOD Discovery Program, Jan. 20, 2007
Professional Development Series; An Academic Career in Research, "A time to give and a time to take". UMKC SOD, March 20, 2008
MUBIG School of Nursing, June 9, 2008 "Study in Mineralized Tissues"
Department of Oral Biology, UMKC, June 24, 2008.
Department of Oral and Craniofacial Sciences, "Improving Surgical Outcomes Through Research" April 9, 2014.

4. Community Activities:

Antioch Church: Nursery, Children's ministry

B. Patient Service: not applicable

C. Committees:

Departmental

1996-2001 UTHSCSA Department of Medicine Research Committee
1999-2001 UTHSCSA Howard Hughes Research Committee

School

2004-2009 UMKC SOD Multi-Cultural Taskforce on Recruitment and Retention
2005-2009 Osteonecrosis of the Jaw Task Force
2006-2008 UMKC Standing Committee on Research Dishonesty
2016-present IU SOM Executive Committee
2016-present IU SOM Scientific Advisory Committee
2016-present IU SRI Leadership Committee
2016-present IU Research Space Utilization Committee
2018-present IUSM IROC Committee
2017-2021 Center/Institute Directors Council and Mutil-Center Funding Manager
2017-2021 Supervisor, IUSM Electron Microscopy Core.

University

Aug 1987 Member, Institutional Review Grant Committee
May 1989 - Aug 1991 Chairperson, Institutional Review Grant Committee
Aug 1988 American Cancer Society Grant Review Committee
Aug 1989 Chairperson, American Cancer Society Grant Review Committee
Jun 1989 Cancer Therapy and Research Center Biomedical Research Support
Grant Review committee
Oct 1988 PEW Scholars Grant Review Committee
Sept 1993 Cancer Coordinating Committee
May 1994 Judge for Cancer Research Day
1994-1995 Industry-University Cooperative Research Center
May 1995 University of Texas Health Science Center - Dental School's 25th
Anniversary and International Symposium
April 1995 Texas Dental School Research Collaboration Task Force
1995-2001 Dental Japanese Student Exchange Program
1998-1999 Competitive Research Enhancement Fund Review Committee
1998-1999 Search Committee to replace Physical Plant Director
1999-2001 Core Research Facilities Committee
2000 Graduate Faculty Teaching Awards Committee
2001-2002 IACUC, UMKC
2001-2002 Murine Hepatitis Taskforce
2002-2006 Chair, Scientific Advisory Cmte for Kansas City Life Sciences
Proteomics Cmte.
2001 Search Committee for Dean of the School of Biological Sciences
2002-2005 Committee on Bioinformatics
2002-2005 Life Sciences Millenium Committee
2002-2006 Kansas City Life Sciences Proteomics Cmte.
2002-2006 Chair, Scientific Advisory Cmte for Proteomics Consortium

2003	Member, Search Cmte. For Research Protections Manager
2003-2005	UMKC Proteomics Committee
2003-2009	Chair, UMKC Animal Users Group
2004-2008	Search Committee for Endowed Chair in Shock/Trauma Center
2004	KCALSI Cardiovascular Research and Tissue Engineering Hot Team
2005-2016	Clinical Research Committee (CTSA)
2005	The Life and Health Sciences Commission Committee
2006-2008	Search Committee for Neal Endowed Chair in Orthopaedic Surgery
2008-2010	UMKC Accreditation Committee
2008	Chancellor Search Committee
2012	Chair, UMKC Center for Translational and Clinical Research Director

UM System

2006-2015	UM Patent Committee
2012-2015	UM Patent, Copyright, and University-Sponsored Educational Materials Committee

Indiana University

IU SOM Space Planning Committee
 Strategic Research Initiative Review Committee
 Basic Chairs Committee
 AHC Space Planning Committee
 School of Medicine Executive Committee
 Tumor Microenvironment and Metastasis Group
 Department-ICs Governance Work Group
 IUSM Core Oversight Committee, IROC-co-founder
 IUSM Dean's Space Advisory Cmte
 Center Directors Committee, CIDA
 Search Committee: Transgenic Facility Director
 Search Committee: Director, PSI Multiple Myeloma Initiative
 Anatomy, Cell Biology & Physiology P&T cmt.
 Search Committee: Chair: Anatomy, Cell Biology & Physiology 2021
 Search Committee: Division Chief, Hematology 2023
 IUSM Dean's Office Research Advisory Cmte.
 IU Animal Use Advisory Cmte
 Orthopaedic Surgery Search Cmte.
 Search Committee: AVP ORC 2024
 Van Nys Space Committee 2024

National

1994-1998	ABRF Peptide Synthesis Committee
1998	Nominations Committee, American Society for Bone and Mineral Research
2000-2005	ABRF Peptide Standard Committee
2001-2004	Publications Committee for <i>Journal of Biomolecular Techniques</i>
2002	Nominations Committee, Association of Biomolecular Resource Facilities
2002-2005	Publications Committee for the <i>Journal of Bone and Mineral Research</i>

2005-2008	Chair, Advocacy Committee for the <i>American Society for Bone and Mineral Research</i>
2005	Organizing Committee for the 36th Sun Valley Workshop on Skeletal Tissue Biology, Aug, 2006
2006	Strategic Planning Committee, ASBMR
2008	Strategic Planning Committee, ASBMR
2008-2014	Executive Committee, ASBMR
2015	Search Committee, Primer Editor-in-Chief
2016	Search Committee, JBMR and JBMR Plus Editor-in-Chiefs
2024	Planning Committee, Rare Bone Diseases Workshop ASBMR 2025

D. Administrative Responsibilities:

1a. Institutional Administrative Responsibilities

July 1989-2001 Director of the UTHSCSA Institutional Protein Core facility

The Institutional Protein Core Facility was located in the Department of Medicine, room 5.344T and Department of Biochemistry room 432B and offered services to both Veterans Administration and Health Science Center Investigators at a reduced fee and other investigators at a 25% additional charge. The core contained state of the art instrumentation for peptide synthesis and purification, amino acid analysis, peptide and protein sequencing, analytical and preparative high performance liquid chromatography, mass spectrometry, and supporting computer software for data management and analysis. Assistance in protein isolation and characterization, development of strategies, coupling procedures, antibody production, characterization and use, and other chemistries were available as a service of the Core Director.

Sept. 2001 - 2016 Director, Bone Biology Research Program at UMKC SOD

The Bone Biology Research Program at the UMKC School of Dentistry was composed of the Director, and individuals with recognized experience in bone research which includes Drs. Mark Johnson, Jeff Gorski, Sarah Dallas, and Yasuyoshi Ueki. Dr. Bonewald's responsibilities were to insure the success of not only faculty, but also graduate students and postdoctoral fellows in this program. The research group offered expertise in genetics, genomics, proteomics, transgenics, molecular biology, protein chemistry, cell biology, and matrix biology. Data meetings were held every Thursday at 8 am for students and postdoctoral fellows to present their data. Dr. Bonewald also co-established the KC Bone and Tooth Seminar Series. Classes were also given for graduate students.

2008-2016 Director, UMKC Center of Excellence in the Study of Dental and Musculoskeletal Biology

This Center of Excellence was structured to leverage significant existing resources to generate a mechanism to increase productivity and funding to a much greater extent over that which would be expected from the individual components and constituents. Members included investigators that have publications and are funded for their studies in mineralized tissues from the schools of Dentistry, Medicine, Nursing, and Computing and Engineering. This Center built upon the success of its members to create an environment supportive of creative discovery that attracted prominent researchers and facilitated transfer of discoveries to industry and to

the patient.

- 2009-2012 Vice Chancellor for Research and Economic Development Interim for the University of Missouri at Kansas City
- 2012-2015 Vice Chancellor for Clinical and Translational Research for the University of Missouri at Kansas City
- 2015-2016 Director, Kansas City Consortium on Musculoskeletal Diseases and Disorders.
- Dr. Bonewald was the founding director of the Consortium, an initiative formed between the institutions of University of Missouri-Kansas City, UMKC, Kansas University Medical Center, KUMC, and Kansas City University of Medicine and Biosciences, KCUMB. The goal of this consortium is to build research teams including basic through translational to clinical research to tackle understanding and treatment of musculoskeletal diseases and conditions.

- 2016-2024 Executive and Founding Director, Indiana Center for Musculoskeletal Health, ICMH

The ICMH consists of basic and translational musculoskeletal disease research, clinical treatment, and education in the area of musculoskeletal disease. The mission and goal of the ICMH is the discovery and development of new treatments, cures, preventative strategies, diagnostic tools, and new technologies to address the increasing burden of bone, muscle, and cartilage disorders among patients of all ages. <https://medicine.iu.edu/research/centers-institutes/musculoskeletal-health/research/>

1b. Divisional Administrative Responsibilities:

- 1987-1990 Divisional LAR, radiation safety, factor inventory administrator
- 1987-1990 Divisional Tissue Core and supplies administrator
- 1987-1994 Divisional Friday and Monday Lab Meetings conducted in absence of Dr Mundy
- 1987-1997 Divisional Computer Facility Administrator
- 1987-1999 Divisional Wednesday Endocrine Conference Coordinator
- 1993-2001 Divisional Tissue Culture Core and Common Equipment Core Director
- 1992-2001 Divisional Image Analysis Center
- 2001-2016 Director Bone Biology Program, Dept of Oral Biology, School of Dentistry, UMKC
- 2002-2009 Director, UMKC School of Dentistry Mass Spectrometry Facility

2. Staff and Personnel Currently Supervised:

- Carrie Zhao Laboratory Manager
- Yukiko Kitase Research Assistant Professor
- Fabrizio Pin Assistant Professor
- Cecilia Gouveau Visiting Scholar
- Charalampos Lyssikatos